ISSN 2223-0025

THE LAHORE JOURNAL OF BUSINESS

Lahore School of Economics

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Volume 07, No.01 Apr-Sep, 2018

THE LAHORE JOURNAL OF BUSINESS

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Editorial Staff: Tele. No: 0092 - 42 – 111-656-111 Ext. 286
Telefax: 0092 - 42 – 36561230
URL: www.lahoreschoolofeconomics.edu.pk
E-mail: ljb@lahoreschool.edu.pk
Publisher: Lahore School of Economics, Lahore, Pakistan.

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07 2018

THE LAHORE JOURNAL OF BUSINESS

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Practicing Market Orientation for Customer Engagement: The Mediating Effect of Personalization and Multi-Channel Marketing

Saad Shahid[*] and Rida Ayaz[**]

Abstract

The purpose of this study is to examine whether an organization can create customer engagement by practicing market orientation, personalization and using multi-channel marketing. The proposed conceptual framework is empirically tested using quantitative data. Survey data were collected from 240 students of both private and public universities in Pakistan. The findings show support that market orientation and personalization do not lead to customer engagement but multi-channel marketing does have a relationship with customer engagement. The proposed mediation of personalization and multi-channel marketing was not empirically supported. The results of this research suggest that firms should practice multi-channel marketing to interact with the target market. Multi-channel marketing is most likely to keep the existing and potential consumers engaged. This study adds value to the literature by providing an explanation of the impact of the two inbound marketing themes; personalization and multi-channel marketing and their consequent relationship with customer engagement.

Keywords: Market Orientation, Personalization, Multi-channel Marketing and Customer Engagement.

JEL Classification: E32, F23, F44, M00, M30, M31, M37

1. Introduction

Market orientation (MO) has been a topic of interest for many researchers (Chuang, 2016; Uncles, 2011; Harris & Ogbonna, 2001). The significance of market orientation is recognized and acknowledged by both academics and practitioners (Wu, 2017). Matanda and Ndubisi (2009) have studied market orientation in relationship with brand value and economic benefits. There are studies which show support for a relationship between MO and customer loyalty and customer satisfaction (Jaworski & Kohli, 1993; Im & Workman, 2004), employee commitment and employee

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satisfaction (Jaworski & Kohli, 1993). Market orientation comprises competitor orientation, customer-orientation and inter-functional coordination (Narver & Slater, 1990). Customer engagement is seen as a central measure of marketing effectiveness (Ge & Gretzel, 2017). Some researchers conceptualize customer engagement as a mental process (Bowden, 2009) whilst others see it as non-transactional behavior (Van Doorn et al., 2010). Amongst researchers, customer engagement has gained importance as a topic of interest as it has been fruitful in keeping customers involved (Bowden, 2009). Many studies have associated customer engagement with mobile phone applications and digital media, primarily because new and alternative marketing mediums have gained strength relative to traditional marketing initiatives (Guesalaga, 2015; Dovaliene, Masiulyte & Piligrimiene, 2015).

Inbound marketing aims to create memorable content, and markets it through search engine optimization (SEO), blogs, webinars, social media, search engine marketing and email marketing (Capatina, Bleoju, Matos & Vairinhos, 2016). The companies using such forums are practicing inbound marketing. Firms end up practicing multi-channel marketing as a consequence of adapting inbound marketing (Halligan & Shah, 2009; Opreana & Vinerean, 2015). Multi-channel marketing is a phenomenon which is gaining attention (Kumar, 2010) and is known as one of the themes in inbound marketing. It is due to multi-channel marketing that the customers tend to use multiple forums to access, choose, compare and buy things (Hubspot, 2016).

Personalization is considered important for the acceptance and success of digital marketing (Chiu, Kao & Lo, 2010). Often organizations make use of personalized services to serve the needs of consumers (Salvador, 2007). Prior literature has shown that sound understanding of personalization is an important feature for e-commerce and for the brands which rely heavily on digital marketing (Zanker Ricci, Jannach & Terveen, 2010; Chau, Ho, Ho & Yao, 2013). Considering the recent attention of researchers towards personalization, this study has considered it as a theme of inbound marketing (Hubspot, 2016). MO, multi-channel marketing (Payne & Frow, 2005) and personalization (Tam & Ho, 2006) are viewed as predictors of customer engagement.

Unlike prior studies, this research adds considerable value to the existing literature on inbound marketing. It takes into consideration the themes of inbound marketing such as personalization and multichannel marketing, which have not been studied before (Halligan & Shah, 2009;

Steenburgh, Avery & Dahod, 2009). Moreover, inbound marketing themes have not been studied in relation to customer engagement in Pakistani context. This study proposed to address the following research questions:

Q1) Is there a relationship between MO and inbound marketing themes?

Q2) Is there a relationship between inbound marketing themes and customer engagement?

Q3) Is there a relationship between MO and customer engagement?

2. Literature Review

There is an increased need for understanding customer purchasing behavior because customers are no longer passive receivers of the messages that are being sent by brands; instead, they wish to be actively engaged with the brand. This explains why there is a shift from the traditional one-way medium of communications (Thakur, 2016) to more dynamic, interactive communication with customers.

2.1. Customer Engagement

Customer engagement can be explained as "the repeated interactions between consumers and brand that strengthen emotional, psychological or physical investment a customer has in that brand" (Van Doorn et al., 2010). Customer engagement, as highlighted in multiple studies, results in sales growth, and continuous customer involvement and feedback is reported to lead to improved product development (Nambisan & Baron, 2007; Bowden, 2009; Bijmolt et al., 2010). Customer engagement is the customer exhibiting a relationship at the psychological, cognitive and emotional levels with the brands (Patterson, Yu & De Ruyter, 2006). Bowden (2009) explains customer engagement as a cognitive process where the old customers maintain loyalty to the same brand whilst the new customers build their loyalty towards a new brand. Some researchers have rightly identified customer engagement as a "non-transactional behavior" which motivates the customers to demonstrate interest in a brand (Van Doorn et al., 2010).

There are multiple studies that have broken down customer engagement into "cognitive, emotional and behavioral" aspects (Brodie, Hollebeek, Juric, & Ilic, 2011; Hollebeek, 2011). Recently Zhang, Guo, Hu and Liu (2016) divided customer engagement into "conscious participation, enthusiasm and social interaction". Thakur (2016) considered customer

engagement to be a result of customer experience having utilitarian, emotional, social and monetary aspects, and understanding these is required to understand its effect on customer loyalty. Customer engagement has also been studied in relation to virtual aspects such as customer interactions on mobile phone applications and social media (Guesalaga, 2015; Dovaliene, Masiulyte & Piligrimiene, 2015; Verhagen, Swen, Feldberg & Merikivi, 2015; Harrigan, Evers, Miles & Daly, 2016). Most of the brands are inclined to build their online platforms which support the customers and keep them engaged (Wagner & Majchrzak, 2006). Das (2003) has identified that these digital platforms help maintain relationships with customers, as well as to provide customer service at a low-cost and are relatively more effective.

This study builds on previous research that emphasizes the significance of the impact of customer engagement on digital media (Harrigan et al., 2016). In this study, customer engagement was treated as a latent construct with 5 dimensions: enthusiasm, attention, absorption, interaction and identification (So, King & Sparks, 2014) (See table 1).

Table 1: Dimensions of Customer Engagement

Dimension	Citation	Definition
Enthusiasm	Vivek (2009)	An individual's strong level of excitement or zeal and interest in a brand.
Attention	Lin, Gregor and Ewing (2008)	Customer's level of focus, consciously or sub-consciously.
Absorption	Schaufeli, Salanova, González-Romá & Bakker (2002)	The dimension of absorption can be explained by emphasizing on customer's level of concentration and inclination in a brand.
Interaction	Harrigan et al. (2016)	Customers exchanging the ideas, thoughts and feelings about their experiences with the brands.
Identification	Bagozzi & Dholakia (2006)	Customers tend to relate with some brands over the others. This happens because they tend to relate themselves with these brands, by matching their self-image with the brands.

2.2. *Market Orientation*

The concept of market MO helps brands to be aware of marketplace requirements and to develop its capabilities as per the external

environment that connects with the firm (Morgan, Vorhies & Mason, 2009. A firm's MO can influence the performance of that firm (Kohli & Jaworski, 1990; Jaworski & Kohli, 1993; Kirca, Jayachandran & Bearden, 2005). Studies have also reported that the firms that are market-oriented benefit in the marketplaces, and employees of these firms also develop positive attitudes towards such firm (Lings, 2004).

Multiple studies have conceptualized MO (Narver & Slater, 1990; Homburg & Pflesser, 2000; Narver, Slater & MacLachlan, 2004). MO has been broken down into competitor orientation, inter-functional coordination and customer orientation (Narver & Slater, 1990) also MO can be operationalized with respect to cultural and behavioral (Homburg & Pflesser, 2000) and can be classified as responsive and proactive (Narver et al., 2004). Responsive MO occurs when the firm dedicates its resources to understanding and fulfilling customer needs, and proactive MO occurs when the firm dedicates its resources to understanding and fulfilling the latent needs of the customers (Chuang, 2016).

Chuang (2016) viewed MO as a phenomenon which can be further broken down into competitor orientation, inter-functional coordination, customer orientation and customers' latent need fulfillment. Competitor orientation occurs when the firm is collecting information on competitor's strategies, and short- and long-term strengths and weaknesses (Ge & Ding, 2005). Similarly, inter-functional coordination occurs when the firm utilizes its intelligence, resources and other information to ensure that all employees work toward a common goal of satisfying the customer (Narver & Slater, 1990). Customer orientation occurs when the firm aims to satisfy the needs of the customer in order to ensure a long-term customer relationship (Balakrishnan. 1996). Latent need fulfillment occurs where the firm attempts to identify the hidden needs of the customer and then fulfills them by devising products or services accordingly (Nasution, Mavondo, Matanda & Ndubisi, 2011).

2.3. Personalization

Personalization as a phenomenon began to gain importance because it accommodates the differences between the consumers at the individual level (Macquet & Stanton, 2014). Service personalization is discussed as a "process of using individual's own information to tailor the service and the transactional environment to improve the benefits accruing to them" (Lee & Crange, 2011). Personalization is described as using a customer's information to make the product or service meet customer

needs. However, customers fear that their personal information is at stake which is why some researchers consider personalization a paradox (Lee & Rha, 2016).

Every firm needs a clear understanding of its customers' needs and wants to be able to provide personalized services (Gwinner, Bitner, Brown & Kumar, 2005). Adapting to customer differences is challenging for firms because customer preferences are usually ill-defined (Bettman, Luce & Payne, 1998). To understand customer preferences, firms interact with the consumers themselves (Glushko & Nomorosa, 2013). In these interactions, the concerned firms ask the customers questions regarding their likes and dislikes and infer their probable behavior in a buying situation (Adomavicius & Tuzhilin, 2005).

Personalization has different meanings for different individuals (Fan & Poole, 2006). Bonet (2001) emphasized that personalization is necessary for user satisfaction and that it helps create a personalized touch. Personalization is often confused with customization and is used interchangeably. Sundar and Marathe (2010) distinguished between them by explaining that personalization is system-initiated and customization is user-initiated. One way to further differentiate between them is on the basis of their applications. Personalization is mostly focused on the technological, virtual and internet aspects of marketing (Kwon et al., 2010). However, customization research focuses on tangible products and is now also incorporated in service studies (Wichary et al., 2005).

Kennedy, Goolsby and Arnould (2003) underscored the importance of customer orientation implementation which they view as a dimension of MO. By collecting on-site data using ethnographic collection methods, the researchers concluded that personalization, along with prioritization and empowerment, is necessary to ensure customer orientation. MO is hypothesized to have a significant positive relationship with personalization (Leigh & Marshall, 2001; Kennedy et al., 2003). Therefore, the hypothesis proposed to be tested was (See Figure 1a):

H_1: There is a relationship between MO and personalization.

Tuli, Kohli and Bharadwaj (2007) identify the importance of customer solutions with a customer adaptiveness focus. They concluded that while keeping customers' needs in mind, firms should make use of integration and customization, leaning on a clear understanding of customer requirements. In their research on customer relationship

management, Payne and Frow (2005) identified a value creation process; proposed new frameworks and explored the role of each variable in the framework. According to their view, overall strategy can be divided into business strategy and customer strategy. Customer strategy considers customer choice and characteristics collectively. Customer strategy can be viewed as personalization of customer choice i.e. their likes and dislikes are considered hence leading to the value creation process with the intention of customer acquisition and retention. Customer retention means that during their interactions with the brand they have developed loyalty and chosen to stay engaged with it. Based on prior literature we can infer that personalization has a relationship with customer engagement (Tuli, Kohli & Bharadwaj, 2007; Payne & Frow, 2005; Tam & Ho, 2006). Therefore, the proposed hypothesis was tested (See Figure 1a):

H_2: There is a relationship between personalization and customer engagement.

Rakthin, Calantone and Wang (2016) surveyed 990 marketing and sales managers, testing the direct and indirect relationship of MO with customer acquisition and retention. They reported the impact of MO on customer acquisition and retention as significant and positive. Kirca et al. (2005) in their meta-analysis identified that the most important consequences of MO are perceived quality, customer satisfaction and customer loyalty. Market-oriented firms were found to enhance customer loyalty because such firms are well positioned to anticipate customer needs and to offer goods and services to satisfy those needs. If the customers are loyal towards one brand, it means the brand has engaged the customer successfully. MO was found to have significant positive relationship with customer engagement (Kirka et al., 2005; Rakthin et al., 2016). Therefore, the proposed hypothesis was tested (See Figure 1a):

H_3: There is a relationship between MO and customer engagement.

Consumer channel-choice behavior has been previously studied (Wallace, Giese & Johnson, 2004). There is a trend among marketers to approach the customer from different mediums of communications. Today, customers have multiple touch points and while remaining on the go they want to be accessed by companies. Customers are now faced with two decisions whilst shopping: "which firm to interact with and through which channel" (Neslin et al., 2006, p. 91). Multi-channel marketing is widely used these days to motivate customers to shop more frequently (Hansotia & Rukstales, 2002). Other objectives of multi-channel marketing

include coverage expansion in the hopes of achieving marketing goals, massive adaption in the location of the customers, to eradicate the intermediaries, and to spread the risk over all other marketing channels (Kontis & Lagos, 2015).

Customers exhibit the common behavior of taking advantage of all possible opportunities when they shop through multiple channels. Melis et al. (2016) examined customer costs and benefits for making use of the multiple channels whilst shopping. They found the benefits of online channels included convenience, time saving and eradication of transport costs. Whilst the downside included information overload as there are multiple online vendors and the threat of information breach.

Ensuring that the product reaches the consumers through multiple channels is a complex task (Agatz, Fleischmann & Van Nunen, 2008). Neslin et al. (2006) identified five challenges associated with multi-channel retailing. Firstly, data integration across multiple channels becomes an inconvenience. Secondly, understanding the variations in customer behavior emerging from their use of different channels becomes difficult for vendors. Thirdly, channel evaluation: how a channel is performing and how the performance of a particular channel can be improved. Fourthly, allocation of resources to each channel of marketing involves a considerable amount of risk. Finally, coordination amongst channels is difficult for vendors since there is a need to keep the message consistent amongst all marketing channels.

There is limited literature available which links the practice of MO of firms with their practice of using multi-channel marketing. Reid, Luxton and Mavondo (2005) have reported a link between integrated marketing communication (IMC) and MO. IMC is a process which involves the management of customer relationships by the firm controlling all messages sent to customers via all mediums of communications (Reid et al., 2005). One important dimension of MO is customer orientation which involves understanding the customer's needs, including their channel preference. The firm's MO may elevate the need for multi-channel marketing via IMC. Therefore, the hypothesis proposed for testing was (See Figure 1a):

H_4: There is a relationship between MO and multi-channel marketing.

Payne and Frow (2005) noted the role played by Customer Relationship Management (CRM) and the way it enhances customer value. The two-way process of value creation via multi-channel marketing has

been established. In their model, Payne and Frow (2005) described multi-channel marketing comprising salesforce, mobile commerce, retail outlets, telephony, electronic commerce and direct marketing. They note customer acquisition and retention which may be related to customer engagement. Thus, it can be deduced that the practice of multi-channel marketing is likely to leads to customer engagement. Therefore, the hypothesis proposed for testing was (See Figure 1a):

H_5: There is a relationship between multi-channel marketing and customer engagement.

Gallant, Irizarry and Kreps (2007) define user-centered design of a product as easy to use for the customers. This may be inferred as one of the dimensions of MO which is related to customer orientation. For example, traffic through a hospital website may increase if there were trust, credibility, usefulness and personalization exhibited. Therefore, building on the existing literature we can conclude the hypothesis (See Figure 1b):

H_6: Personalization mediates the relationship between market orientation and customer engagement.

Fensel, Toma, García, Stavrakantonakis and Fensel (2014) provided a rationale for multiple channel marketing, asking why there is a need to connect to the customer in one or more ways. Fensel et al., (2014) cite an increase in online customer communication with different brands. Thus, while being customer and competitor oriented, firms can choose to practice multi-channel marketing and expect customer engagement in return. Therefore, the hypothesis proposed for testing was (See Figure 1c):

H_7: Multi-channel marketing mediates the relationship between MO and customer engagement.

Figure 1a: Inter-Relation between Market Orientation, Personalization, Multi-Channel Marketing and Customer Engagement.

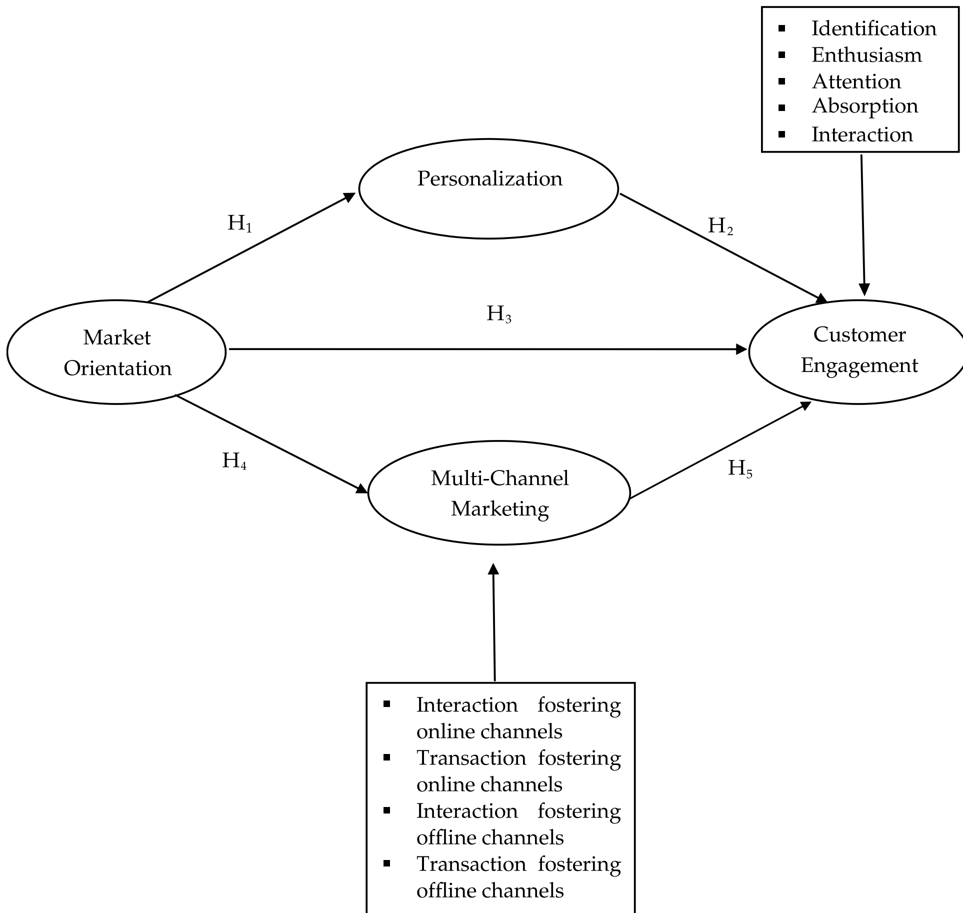


Figure 1b: Mediating Effect of Personalization on relationship between Market Orientation and Customer Engagement.

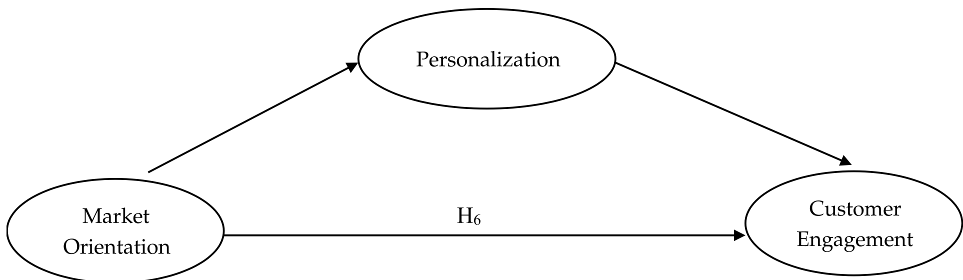
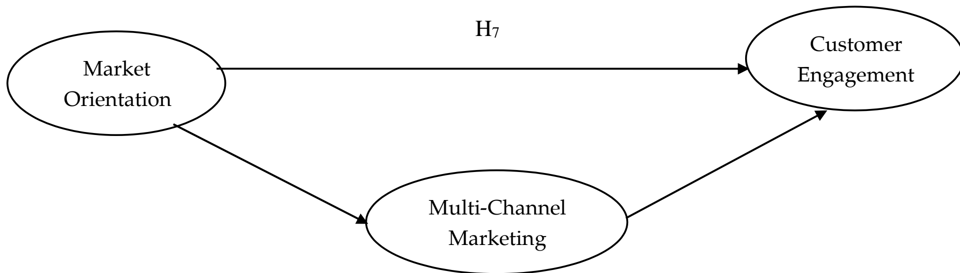


Figure 1c: Mediating Effect of Multi-Channel Marketing on relationship between Market Orientation and Customer Engagement.



3. Methodology

The questionnaire used in this study was adapted from established instruments. The responses were on a 5-point likert scale (1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree). All the items for each variable were re-worded to complement the purpose of this study (Table 2). Rahman (2013) recommended that for a population size of 100,000 or greater, a sample size 204 is sufficient under the precision rate of ± 7% and the confidence interval of 95% (See Table 3). This study has a sample size of 240.

Table 2: Variable Details

Instrument	Creator	Number of items
Personalization	Komiak and Benbasat (2006)	3
Market Orientation	Hooley, Greenley, Cadogan and Fahy (2005)	5
Multi-channel marketing ▪ "Interaction fostering online channels ▪ Transaction fostering offline channels ▪ Interaction fostering offline channels ▪ Transaction fostering online channels"	Johansson and Kask (2016)	15
Customer Engagement ▪ Identification ▪ Enthusiasm ▪ Attention ▪ Absorption ▪ Interaction	So et al. (2014)	25

Table 3: Sample Size Determination

Size of Population	Sample Size for Precision of:			
>100,000	±3%	±5%	±7%	±10%
	1,111	400	204	100

Several customer engagement studies have made use of online forums as well as student bodies to obtain data (Chuang, 2016; Sprot, Czellar & Spangenberg, 2009; Zhang et al., 2016; Verhagen et al., 2015). The survey used in this study was created on Google docs and circulated amongst students via digital media. Students were from both private and public universities in Pakistan. Simple random sampling technique was used. The questionnaire outlined the objective of the research and guaranteed confidentiality. Respondents were instructed to choose a brand with e-commerce to qualify for the research. It was ensured that every respondent answered all the questions by keeping a check on the Google forms. The Google form was set to reject missing answers and was set to prompt the respondent to answer missed question.

4. Data Analysis and Results

Structural Equation Modeling (SEM) was used to test the conceptual framework (Jung, Namkung & Yoon, 2010). In order to ensure the robustness of this research, convergent validity, discriminant validity and the construct reliability were calculated. Validity helps in determining the rationality and appropriateness of the results (Messick, 1990) and reliability determines "the successful continuous attainment of the results that originally an instrument is developed for" (Black & Champion, 1976, p. 42. Characteristics of the respondents of this research are consolidated in Table 4:

Table 4: Respondent Characteristics

Characteristics	N=240	Percentage
Gender		
Male	114	47.5%
Female	126	52.5%
Age Group		
Under 21	12	5%
21-29	225	93.8%
30-40	3	1.2%

Characteristics	N=240	Percentage
Brands of Choice		
Khaadi	24	10%
Apple	21	8.75%
Nestle	15	6.25%
Coca Cola	6	2.5%
Uniworth	6	2.5%
Samsung	6	2.5%
Sapphire	6	2.5%
Miscellaneous	156	65%

For this study, a confirmatory actor analysis (CFA) was conducted on four constructs. CFA was used to evaluate the model fit (Bartholomew & Knott, 1999) as well as the factor structure of the variables under study (Hair, Black, Babin, Anderson & Tatham, 2006). Using AMOS 22.0, items related to MO, personalization, multi-channel marketing and customer engagement were loaded on to evaluate the model fit and structure of the variables.

Table 5 shows the factor loadings, construct reliability and validity. To improve the CFA model, a few items were deleted from the respective variables (Anderson & Gerbing, 1988). Any item which had a factor loading below 0.5 was taken out from the model. All the variables had a construct reliability score greater than 0.7 (Fornell & Larcker, 1981). The average variance extracted (AVE) for all latent variables was greater than 0.5 (Fornell & Larcker, 1981) implying that the constructs were valid and these latent constructs comprise items that reflect the theoretical latent constructs. Table 6 shows the details of discriminant validity of the constructs. All variables have the average shared value (ASV) of less than their AVE implying that all the latent constructs are distinct from each other and that discriminant validity holds. Table 7 exhibits the model fit indicators. CMIN/DF should be between 2 and 5, all the index indicators have a cut-off point of 0.7 and RMSEA should be less than 0.10 (Yang, 2010).

Table 5: Construct Details

Construct Items	Factor Loadings
Market Orientation (CR=0.797, AVE=0.500)	
The aims and strategies of my brand/company are oriented towards customer satisfaction	0.686
The service commitment of my brand/company to the customers is tightly controlled	Dropped
The competitive strategies of my brand/company are based on understanding the customers' needs	0.616
The organizational functions of my brand/company are integrated and coordinated to satisfy the customers' needs	0.865
The strategies my brand/company are aimed at increasing customer value	0.635
Personalization (CR=0.779, AVE=0.545)	
The brand/company understands my needs	0.748
The brand/company knows what I want	0.854
The brand/company takes my needs as its own preferences	0.589
Multi-channel Marketing	
Interaction Fostering Online Channels (CR=0.794, AVE=0.567)	
Have social media interactions.	0.807
Supports bloggers to get positive mentions online through a third party	0.599
E-mails me (addressed direct mail online)	Dropped
Holds interactive real time communication online (e.g. chat, Skype, web-based seminars).	0.832
Transaction Fostering Offline Channels (CR=0.807, AVE=0.583)	
Has channels print advertising (unaddressed; e.g.ads in newspapers, flyers, billboards, etc.).	0.804
Has traditional PR work (press releases, make contacts with journalists).	0.72
Has store front presentations in physical stores	Dropped
Advertises on TV and/or Radio commercials.	0.764
Interaction Fostering Offline Channels (CR=0.767, AVE=0.623)	
Sends me direct mail (Printed)	0.842
Calls present and potential customers	0.733
Bonds with local sport communities (e.g. sponsorship, dis- counts and themed evenings)	Dropped
Holds "Face-to-face" interactions (e.g., fairs, seminars, presentations)	Dropped
Transaction Fostering Online Channels (CR=0.813, AVE=0.595)	
Has search engine marketing	0.874
Has online advertising on webpages ('banners', etc.)	0.704
Advertises in games/music/video services online (e.g. YouTube videos and Spotify ads)	0.724

Construct Items	Factor Loadings
Customer Engagement	
Identification (CR=0.843, AVE=0.574)	
When someone criticizes this brand/company, it feels like a personal insult	0.769
When I talk about this brand/company, I usually say 'we' rather than 'they'.	0.703
This brand's successes are my successes	0.713
When someone praises this brand/company, it feels like a personal compliment.	0.838
Enthusiasm (CR=0.928, AVE=0.722)	
I am heavily into this brand/company	0.694
I am passionate about this brand/company	0.875
I am enthusiastic about this brand/company	0.934
I feel excited about this brand/company	0.91
I love this brand/company	0.814
Attention (CR=0.922, AVE=0.702)	
I like to learn more about this brand/company	0.848
I pay a lot of attention to anything about this brand/company.	0.809
Anything related to this brand/company grabs my attention.	0.813
I concentrate a lot on this brand/company	0.882
I like learning more about this brand/company	0.834
Absorption (CR=0.879, AVE=0.594)	
When I am interacting with this brand/company, I forget everything else around me.	0.832
Time flies when I am interacting with this brand/company	0.797
When I am interacting with this brand/company, I do not get carried away.	Dropped
When interacting with this brand/company, it is difficult to detach myself.	0.624
In my interaction with this brand/company, I am immersed.	0.777
When interacting with this brand/company intensely, I feel happy.	0.806
Interaction (CR=0.842, AVE=0.519)	
In general, I like to get involved in this brand/company community discussion.	0.76
I am someone who enjoys interacting with like-minded others in this brand/company community.	0.822
I am someone who likes actively participating in this brand/company community discussion.	0.667
In general, I thoroughly enjoy exchanging ideas with other people in this brand/company community.	0.682
I often participate in activities of this brand/company community.	0.656

Notes: CR= Construct Reliability and AVE= Average Variance Extracted

Table 6: Discriminant Validity

Constructs		1	2	3	4
1	Market Orientation	1			
2	Personalization	0.832	1		
3	Multi-channel Marketing	0.313	0.407	1	
4	Customer Engagement	0.312	0.28	0.618	1
	ASV	0.295	0.312	0.215	0.185

Notes: The matrix represents the correlations; ASV denotes average shared variance.

Table 7: Model Fit Indices

CMIN/DF	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
3.075	0.728	0.78	0.737	0.732	0.69	0.729	0.08

5. Hypothesis Testing

Data analysis was performed in Amos 22.0 to test the proposed hypotheses about the latent variables. Table 8 shows the results of the SEM. MO was found to have a positive relationship with personalization (SV[1] =0.905, $p<0.001$). Therefore, it can be concluded that MO has a positive and significant impact on personalization implying that if the firm is market-oriented it will likely adapt personalization for its customers. Personalization (SV=-0.135, $p=0.577$) has negative impact on customer engagement, but this finding did not reach significance failing to support the hypothesized relationship. Therefore, an increase in personalization is unlikely to increase customer engagement, so a firm practicing personalization will not keep its customers engaged. MO (SV=0.276, $p=0.300$) showed a positive impact on customer engagement, but the finding did not reach significance. Thus, no relationship was found between firms practicing MO and customer engagement. MO (SV=0.192, $p<0.01$) was found to have a positive and significant impact on multi-channel marketing. Therefore, an increase in MO will result in an increase in multi-channel marketing. This means firms practicing MO are likely to opt for multi-channel marketing. Multi-channel marketing (SV=1.318, $p<0.001$) was found to be positively and significantly related to customer engagement. It seems that firms which practice multi-channel marketing can engage their customers well.

[1] Standardized beta co-efficient.

Table 9 shows the model fit indices. According to Yang (2010), the cut-off point of CMIN/DF should be between 2 and 5, all the indices should be greater than 0.7 and RMSEA should be less than 0.10. All criteria were met; TLI and CFI indices are very close to 0.7. The proposed model demonstrates good fit with the data collected from the sample of respondents in this study.

Table 8: Hypothesis Testing

Hypothesis	Relationships	Standardized Value (SV)	P-Value	Decision Rule
H1	Market Orientation → Personalization	0.905	***	Accept
H2	Personalization → Customer Engagement	-0.135	0.577	Reject
H3	Market Orientation → Customer Engagement	0.276	0.300	Reject
H4	Market Orientation → Multi-channel Marketing	0.192	0.002	Accept
H5	Multi-channel Marketing → Customer Engagement	1.318	***	Accept

Notes: *** p<0.001

Table 9: Model Fit Indices

CMIN/DF	NFI	RFI	IFI	TLI	CFI	RMSEA
3.515	0.883	0.711	0.738	0.653	0.691	0.065

6. Mediation Model

The hypothesized conceptual framework proposed that multi-channel marketing and personalization mediates the relationship of MO and customer engagement. There was no direct effect of MO on customer engagement (SV=0.276, p=0.300). Baron and Kenny (1986) propose that mediation cannot be tested if the direct effect fails to reach significance. However, Zhao, Lynch and Chen (2010) proposed a modified measurement method to test for mediation. The first step in mediation analysis approach proposed by Zhao et al. (2010) is to test for the indirect effect of MO and personalization on customer engagement. The indirect effect of MO and multi-channel marketing on customer engagement must also be tested. For ease of analysis, mediation was tested in two separate measurement models using AMOS 22.0 for H_6 and H_7 (see figures 1d and 1e). The standardized beta co-efficient of an indirect effect was significant for both mediators (namely personalization and multi-channel marketing), SV=0.070, p<0.001 and SV=0.315, p<0.001 respectively. The first step in the mediation analysis approach of Zhao et al. (2010) testifies that mediation is present.

The second step is to test for the standardized beta co-efficient between the independent variable and dependent variable, the independent variable and mediator, and the mediator and dependent variable. For H_6, the standardized beta co-efficient between MO and customer engagement was 0.407, $p<0.001$; the beta estimate for the relationship between MO and personalization and personalization and customer engagement was 0.289, $p<0.001$ and 0.244, $p<0.01$ respectively. The results are consistent with the hypothesized framework that personalization mediates the relationship between MO and customer engagement. Model fit statistics showed a good model fit; CMIN/DF=3.445, NFI=0.819, RFI=0.781, IFI=0.893, TLI=0.770, CFI=.745 and RMSEA=0.071. Similarly, For H_7, the standardized beta co-efficient between MO and customer engagement was 0.371, $p<0.001$; the beta estimate for the relationship between MO and multi-channel marketing and multi-channel marketing and customer engagement was 0.409, $p<0.001$ and 0.772, $p<0.01$ respectively. These results are consistent with the hypothesized framework that multi-channel complementarily mediates the relationship between MO and customer engagement. Model fit statistics showed a good model fit; CMIN/DF=2.990, NFI=0.756, RFI=0.821, IFI=0.799, TLI=0.882, CFI=.740 and RMSEA=0.069.

Table 10: Mediation Analysis

Hypotheses				**Direct Effect**		**Indirect Effect**		**Decision**
	Independent Variables	**Mediator**	**Dependent Variables**	**β^***	**P**	**β^***	**p**	
H_6	Market Orientation	Personalization	Customer Engagement			.070**	.000	Mediation
	Market Orientation		Customer Engagement	.407**	.000			
	Market Orientation		Personalization	.289**	.000			Complementary Mediation
	Personalization		Customer Engagement	.244**	.001			
	Total effect: .30							
Model fit indices: CMIN/DF=3.445, NFI=0.819, RFI=0.781, IFI=0.893, TLI=0.770, CFI=.745 and RMSEA=0.071								
H_7	Market Orientation	Multi-channel marketing	Customer Engagement			.315**	.000	Mediation
	Market Orientation		Customer Engagement	.404**	.000			
	Market Orientation		Multi-channel marketing	.409**	.000			Complementary Mediation
	Multi-channel marketing		Customer Engagement	.772**	.001			
	Total effect: .58							
Model fit indices: CMIN/DF=2.990, NFI=0.756, RFI=0.821, IFI=0.799, TLI=0.882, CFI=.740 and RMSEA=0.069								

Figure 1d: Results of Mediating Effect of Personalization between Market Orientation and Customer Engagement.

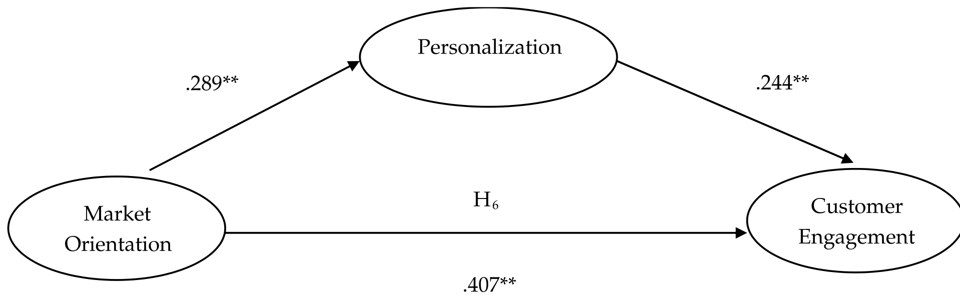
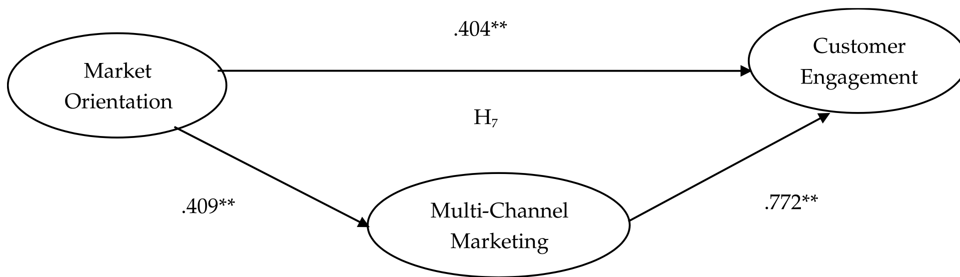


Figure 1e: Results of Mediating Effect of Multi-Channel Marketing between Market Orientation and Customer Engagement.



7. Discussion

The aim of this study was to analyze the impact of MO, personalization and multi-channel marketing on customer engagement. This study also aimed to test for the presence of a mediating effect of personalization and multi-channel marketing in the relationship between MO and customer engagement.

The findings of this study show support for a significant effect of MO on personalization. The findings of this study are consistent with the findings of Kennedy et al. (2003) which states that if the firm practices MO as proposed by Narver and Slater (1990), and in this practice they aim to satisfy customer needs and wants as proposed by Balakrishnan (1996), then such firms can make use of the inbound marketing theme of personalization as proposed by Macquet and Stanton (2014). This finding implies it is highly likely for a firm to opt for personalization if it is market-oriented. One possible explanation for this relationship is that if the firm is market-oriented then it would aim for one of the dimensions of customer orientation.

The findings of this study did not support relationship between personalization and customer engagement. These findings are inconsistent with the findings of Payne and Frow (2005). This means that if the firm is practicing personalization and is taking care of individual aspects that are responsible for the customer needs and wants then such personalization is not likely to lead to customer engagement with that brand. One possible explanation for this absence of relationship is that customer engagement is a set of repeated interactions that the firms or their brands have with the customers (Van Doorn et al., 2010), but the presence of personalization eliminates the need for these repeated interactions. In the presence of personalization, the firm is already aware of the customer's needs and wants and therefore there is no additional information or desire that the customer wishes to send to the firm. This might be why personalization appears not to have a significant effect on customer engagement.

The findings of this study demonstrated that MO does not have a significant effect on customer engagement, which is inconsistent with the findings of Rakthin et al. (2016). This means that if the firm is practicing MO, and is trying to cater all dimensions of MO (Narver & Slater, 1990), then such efforts are not likely to enhance customer engagement. The customer may feel that the firm is catering to their needs and there is no need for engagement.

The findings of this study accept H4, which predicts that MO has a significant impact on multi-channel marketing. The findings of this study are consistent with the findings of Reid et al. (2005). This means that if the firm is practicing MO then it might opt for multi-channel marketing, which involves making use of online and offline mediums to reach out to its consumers (Melis et al., 2016). One possible explanation for the presence of this positive and significant relationship is that in their attempt to practice consumer orientation and cater to consumer needs, firms try to reach consumers using all available channels. Knowing that consumers are now available through different touch points the firm practices multi-channel marketing.

The findings of this study demonstrate support for a significant effect of multi-channel marketing on customer engagement, which is consistent with the findings of Payne and Frow (2005). This means that if the firm is practicing multi-channel marketing and is reaching its customers using multiple marketing mediums then it is more likely to engage its customers. One possible explanation for this relationship is that when the firm reaches customers using different mediums, it reinforces its message and connects with customers effectively. By practicing multi-

channel marketing, the firm facilitates multiple interactions between itself and the customers leading to customer engagement. The study showed support for the proposition that personalization and multi-channel marketing mediate the relationship between MO with customer engagement. These findings are consistent with those of Gallant et al. (2007) and Fensel et al. (2014).

The findings from this study will help academicians and practitioners alike; firstly, it indicates that if a firm practices its three dimensions of MO, it tends to practice personalization. Moreover, market-oriented firms include personalization in its offerings. Secondly, the results indicate that if the firm practices MO it is highly likely that it would also incorporate multi-channel marketing in its business model. Lastly, the results indicate that practicing multi-channel marketing is likely to lead to customer engagement and that if a firm practices MO and personalization then it is likely to develop customer engagement. Similarly, if a firm practices MO along with multi-channel marketing, it is likely that the firm will develop strong customer engagement.

7.1. Managerial Implications

This research has several managerial implications. Firstly, it emphasizes on the inbound marketing approach i.e. existing online marketing trends becoming crucial for firms. This is because the online channels of marketing are increasingly used as consumer touch points. This connection is highly significant as the firms are presented with a chance not only to communicate the existence of a brand but also to persuade the users to buy that brand, and reinforce the consumers have made the right choice. Another implication of this study is the realization of the importance for the firms to practice market-oriented approach. Moreover, for implementing and practicing MO, firms need to implement all three dimensions of being consumer, competitor and inter-functionally focused. This means that firms need to keep track of all three perspectives in order to be aware of the industry and its changing trends.

The consumer focus side of MO drives the firm to offer personalization to its consumers and to practice multi-channel marketing. But both practices were found unlikely to keep the customers engaged. For strong customer engagement, it is crucial for firms to practice multi-channel marketing and personalization. Nevertheless, multi-channel marketing is likely to facilitate the brand and consumer interactions thereby helping firms attain customer engagement. Customer engagement is extremely important

for the firms because it helps remind consumers that a brand exists and why it is superior to competing brands. These continuous interactions serve as the basis for building the brand image, brand trust and finally the brand equity hence leading to consumer lifetime value.

7.2. Limitations and Future Research

This study used cross sectional approach. Future research can be based on longitudinal approach which could help researchers to understand the causal relationship better between variables. Furthermore, this study focuses on the direct impact of MO and personalization on customer engagement. Future studies could incorporate other variables and analyze the indirect impact of these variables on customer engagement. This research also considers only two themes of inbound marketing; the model of this study can be enhanced for future studies by taking into account content creation and distribution, life cycle marketing and integration. Finally, since there is evidence of complementary mediation of personalization and multi-channel marketing between MO and customer engagement, it is likely there is an intervention from another variable which this research has not considered. Researchers can consider more variables which might act as contributory factors on the relationship between MO and customer engagement.

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The Lahore Journal of Business
7 : 1 (Autumn 2018): pp. 33–59

Empirical Analysis of Structural Income Changes in Commercial Banks: A Case of Pakistan

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Abstract

The primary purpose of this study was to conduct an exploratory and explanatory analysis to determine the impact of structural income on performance of the all commercial banks in Pakistan from 2008 to 2015. It aimed to establish the theory on dual impact of income diversification and ownership on bank performance in a developing economy. This population was divided into two categories - ownership mode characterized into conventional and Islamic banks and category mode characterized into five proportions of non-markup and mark up income structures. The divisions were analyzed on the basis of change in assets and equity and gross income, using a non-linear approach. This approach ensured robustness of analysis and clearer outcomes regarding strategic approaches in this sector. Ownership mode finding suggested conventional banks tilt towards non-markup income significantly for asset and gross income base increase and Islamic banks insignificantly towards markup income. Our findings also showed that conventional banks lead Islamic banks, and banks with non-markup income between 30%-40% lead other bank categories in terms of managing profitability. Islamic banks are ahead of conventional banks, and category1 banks with non-markup income above 50% are ahead of all other categories in terms of utilization of funds.

Keywords: Banks, structural income, ownership mode, category mode, non-markup income.

JEL Classification: G11, G20, G21.

1. Introduction

Over the last 30 years, financial sectors worldwide have undergone a series of changes. Deregulation and internationalization

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have increased competition and forced restructuring within the banking industry. As banks explore new avenues for income in a highly competitive and global market, product and service innovation is on the rise. This reasonably leads to changes in the structural income of banks, which ultimately changes the way that profitability and efficiency in operations derive. A key interest of stakeholders is to gain return on their investments, and the bank's role is to protect their customers' interests. As banks deal in risky securities that may even erode their equity, this is essentially a balancing act. While banks attempt to manage risks within a reasonable range, it is an inevitable and ever-present hazard in this sector. Diversification of revenue allows a bank to better manage certain risks.

Structural income consists of the sources of revenue for a bank. This may be traditional sources of revenue, such as the loan portfolio, or non-traditional sources of revenue, such as securities underwriting, insurance and real estate investment. Much of the recent literature analyzing the income of financial institutions deliberates the effect of diversification of income on institutional profitability.

An abundance of research is currently available on developed and developing markets (Rogers, 1998; Stiroh, 2000; Liang et al., 2016, Tortosa-Ausina, 2003; Pasiouras, 2008). However, due to limited data availability, this concept is not applied to less developed markets. The availability of complete ownership data, based on our manual data collection, makes this paper unique in examining the ownership mode and different categories mode. There is a clear gap in the existing literature in relation to investigating the profitability structure through comparison of conventional and Islamic banks and also between five categories of banks. This gap represents the primary motivation for this study. As existing literature has analyzed the role of revenue diversification on bank profitability; this research explored the patterns of structural income in the banking sector of Pakistan. Further, it aimed to determine whether the diversification of income in a developing economy is beneficial in terms of profitability.

To better understand the pattern of structural income in the banking sector, we divided the analysis into two subcategories: ownership mode and category mode. Ownership mode determines patterns in structural income of conventional banks versus Islamic banks. Category mode determines patterns in structural income by creating five classifications on the basis of proportion of non-mark-up income to total income. The patterns of structural income in banks were first determined through exploratory analysis. Then the impact of structural income on

profitability was gauged by empirical analysis. The impact of structural income on profitability of banks was then empirically analyzed. We conducted our empirical investigation over the time frame of 2008 to 2015 using a sample of all commercial banks operating in Pakistan. We extracted a detailed breakdown of annual data on income structure using the annual reports of each institution. This allowed us to analyze thoroughly bank diversification behavior by examining the effect on profitability/performance across various sub-categories and tiers. The banks were analyzed by applying exploratory analysis and empirically tested by applying a nonlinear approach for further authenticity.

This study found that under ownership mode, both conventional and Islamic banks manage their profitability with a higher level of net markup income. But in the case of conventional banks, there is an increase in non-markup income portion; whereas in the case of Islamic banks, there is no significant increase in non-markup income. Empirical analysis further authenticated the same results. Under category mode, theexploratory results depicted an increase in non-markup income of category1 and category2 banks, which is supported by empirical analysis. In the case of category3 banks, exploratory and empirical analysis depicted mixed results. Exploratory results for category4 banks depicted a nominal increase in markup income portion. For category5 banks, exploratory analysis depicted a decrease in non-markup income portion, whereas the empirical results depicted mixed results. We also looked into banks' performance in terms of profitability measures, comparing conventional and Islamic banks. The conventional banks performances exceed those of Islamic banks. Among categories, category1 banks are ahead in terms of return on equity (ROE), and category3 banks are ahead in terms of net profit as a proportion of gross income.

The rest of this paper is organized as follows: section two discusses the literature review. Section three covers data and methodology. Section four discusses the exploratory analysis, while section five presents empirical findings. Lastly, section six presents conclusions and policy implications.

2. Literature Review

While diversification should reasonably lead to lower risks, research has shown that efficiency and stability are the result of various external factors associated with diversification of income and asset base (Edirisuriya, Gunasekarage, & Dempsey, 2015). In addition, it appears that

initial revenue diversification activities are not efficiency enhancers, as a considerably high level of diversification must be achieved to attain efficiency (Alhassan, 2015). Literature investigating the impact of structural income on bank efficiency has shown that cost efficiency increases as diversification is pursued as a strategy (Lozano-Vivas & Pasiouras, 2010). Further, as Chen, Liang and Yu (2018) have determined the difference in impact of diversification on bank performance in Islamic and conventional banks, they have found that diversification generally has a negative impact on performance of conventional banks in Asian countries. This effect is moderated by size of banks such that large Islamic banks demonstrate a positive significant effect of diversification on performance. Building on this diversification aspect, research has also shown that the type of diversification plays an important role in the resulting impact. Income diversification appears to have a homogeneously positive impact on bank performance and stability, while the effects of asset diversification are mixed and appear to be affected by macroeconomic and country-specific factors (Moudud-Ul-Huq, Ashraf, Gupta, & Zheng, 2018; Ashraf, Ramady, & Albinali, 2016). Investigating the effect of line-of-business diversification on asset risk-taking in the U.S. property-liability industry, Che and Liebenberg (2017) have found that diversified insurers take more asset risk than non-diversified insurers and that the degree of asset risk-taking is positively related to the extent of diversification.

In comparing the effects of structural income in terms of lending behavior of conventional and Islamic banks, research has shown that Islamic banks have a relatively high unadjusted rate of return given the risk exposure of their products. It is also evident that Islamic bank managers seem to hold less capital as they tend to rely on diversification benefits. The moral hazard hypothesis, essentially the situation where one party gets involved in a risky situation knowing that it is protected against the risk and the other party will bear the cost, is only evident for Islamic banks in terms of loan and income portfolio diversification (Shaban, Duygun, Anwar, & Akbar, 2014; Bikker & Vervliet, 2018).

However, in developing nations, on average, foreign banks are typically more efficient than, or approximately as efficient as, private domestic banks. Both groups are typically found to be more efficient, on average, than state-owned banks, but there are variations to all of these findings. A study of Pakistani data has found foreign banks are more profit-efficient than private domestic and state-owned banks, but all of these groups are of similar average cost-efficiency (Bonaccorsi di Patti &Hardy, 2005). On the other hand, foreign banks appear not to have any

advantage in terms of profit efficiency in the Middle East and North Africa region (Haque &Brown, 2017). Further, research has shown that robust international diversification increases risk, rather than reducing it (Gulamhussen, Pinheiro & Pozzolo, 2014). Banks in Africa derive absolute benefits from diversification if they cross borders and diversify their revenue base concurrently (Sissy, Amidu & Abor, 2017).

A study by Jaffar, Mabwe and Webb(2014)has indicated that non-interest income is much more volatile than interest income from a global view point and for each individual bank. In the banking sector, technology-related innovation is also essential in generating fee-based income. A study in Barbadian by Craigwell& Maxwell(2005)has indicated that ATM technology seems to be the most influential factor shaping the pattern of non-interest income in the banking industry in Barbados, with results confirmed by an empirical model using panel data.

Existing literature analyzing structural income in banks is divergent. From the perspective of stability, there is a lack of consensus in impacts of diversification on bank stability. A thorough analysis has shown some research confirming this impact (Campa & Kedia,2002; Baele, De Jonghe, & Vander Vennet, 2007; Berger, Demsetz, & Strahan, 1999; Hughes, et. al., 1996; Landskroner, Ruthenberg, & Zaken, 2005). Others have indicated results to the contrary (Stiroh 2006a; Acharya, Hasan, &Saunders, 2006; Carlson, 2004; Deyoung & Rice, 2004a; DeYoung & Rice, 2004b; Hirtle & Stiroh, 2007; Stiroh, 2006b). These studies have found that the more diversified the structural income of a bank, the greater the instability.

A stable and well-established banking system contributes significantly to ensuring stable capital flows and economic convergence in developing economies (Bekaert & Harvey, 2002). Subsequently, it may be reasonably argued that changes in structural income would also result in substantiated performance outcomes in developing economies (King & Levine, 1993).

While the macroeconomic environment plays is an important factor contributing to the performance of banks, research has shown that efficient risk management policies and practices are undermined when macroeconomic volatility (instability) exists (Hackbarth, Miao, & Morellec, 2006). Alternatively, when the macroeconomic environment is both stable and conducive for economic growth, new opportunities for product development and income diversification arise, which contributes to better profitability.

The primary necessity for diversification of structural income arises from hedging risks. Diversified incomes allow banks to manage insolvency risk. This further reduces the likelihood of bankruptcy or financial distress (Froot & Stein, 1998). From an operational perspective, it is also essential to maintain an assorted portfolio of products. A financial institution benefits from variation in product options by enhancing the scale and scope of business (Landskroner et al., 2005).

It has been established that banks must play the role of delegated monitors in financial markets. Information availability and dissemination can decrease the occurrence of information asymmetry in financial markets, thereby leading markets to be more efficient. This dissemination can take place through a diversified service portfolio offered by banks which can further increase revenue and profitability (Baele et al., 2007; Craigwell, R & Maxwell, 2005). As diversification of income becomes prevalent in the banking sector, competition increases and forces new levels of innovation and efficiency in provision of services (Acharya et al., 2006; Carlson, 2004; Landskroner et al., 2005; Lensink & Hermes, 2004; Lepetit, Nys, Rous, & Tarazi, 2008; Morgan & Samolyk, 2003).

Divergence in realizing the real benefits of diversification often occurs from estimations or potential estimations that may occur due to differences in portfolio strategies, changes in risk-adjusted performance, exposure to systemic shocks, and adoption of universal banking policies.

In terms of portfolio strategy, research has shown that estimations of benefits from diversification are based on efficient portfolio theory. If a bank, in reality, does not hold an efficient portfolio, divergence between estimated and actual returns is inevitable. It is essential to note here that diversification is not the problem; the utility of the benefit from diversification is what causes differences in realization of benefits. Froot and Donohue (2002)have found that institutions that actively manage credit risk tend to have loans with higher levels of risk. Cebenoyan and Strahan (2004) have found that banks with more diversified structural income also have higher levels of leverage.

Diversification inevitably leads to expansion into services and industries that are not a part of the core function of banks. In the case that this expansion is in a sector with high levels of competition, or where the bank lacks proficiency, subsequent information asymmetry may result in worse risk-adjusted performance (Brown, Groen, Peristiani, & Snider, 2012; Carlson, 2004; Mercieca, Schaeck, & Wolfe, 2007).

Finally, as diversification helps reduce exposure to idiosyncratic risks, the unavoidable exposure to systemic risk increases as the types of markets in which banks are active increase(De Vries, 2005).The nature of diversification is essential in this context. For example, DeAngelo and Stulz(2015)have found that geographical diversification leads to illiquidity, which increases risk exposure in the event of a customer run.

3. Data and Methodology

This study endeavorsto examine the performance of all commercial banks, 28 in total (except two banks[1]), operating in Pakistan in terms of how they structure their profitability. The profitability is generated through two main categories; one includes the markup on credit loans income and profit on investments net of expenses. The other includes fee income, commission income, gain on investments and foreign exchange, and dividend income. The bank's major source of funds includes deposits, and banks also pay profits to their depositors as an expense. The banks generate their net profit against credit loans markup and profit on investments net of profit payments to depositors. The banks are categorized on the basis of different levels of non-markup income proportion generated by banks.

We initiated the analysis with the objective to analyze the role of non-markup and markup income on the bank's performance.

To meet the study objectives, we have developed the following hypotheses:

H_1: X types of banks are most efficiently getting advantage from their expertise.

H_2: X types of banks are better performers.

3.1. Model

In comparing conventional and Islamic Banks, we checked the bank's preference towards non-markup income or markup income by applying the nonlinear approach over the study timeline,2008-2015. In this regard, we tested preference by applying three profitability measuring tools that include ROA, ROE and profit after tax as a

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[1] "Sind Bank Ltd." and "Industrial and Commercial Bank of China Ltd." As they started their operations after 2008.

proportion of gross income. These models created estimates using the appropriate approach from the Pooled OLS, Fixed Effect and Random Effect. The model selection was based on the redundant effects test[2], Housman test[3] and LaGrange test[4].

$$\frac{Markup\ Income}{Nonmarkup\ Income} = ROA + ROA^2$$

$$\frac{Markup\ Income}{Nonmarkup\ Income} = ROE + ROE^2$$

$$\frac{Markup\ Income}{Nonmarkup\ Income} = \frac{PAT}{GI} + \left(\frac{PAT}{GI}\right)^2$$

The dependent variable is Markup Income as a proportion of Non-markup Incomes, tested on ROA, ROE and profit after tax as a proportion of gross income and their squares in order to analyze preference of the high- and low-performing banks across ownership mode and category mode.

This study systematically analyses the structural income of commercial banks listed in Pakistan. We use a comparative analysis based on ownership mode and then category mode. Ownership mode identifies banks as either conventional banks or Islamic banks. Category mode identifies banks based on structural income, i.e. the total non-markup income as a proportion of total income according to their positions in 2015. Category 1 includes banks which have greater than 50 per cent non-markup income (five banks), category 2 includes banks with non-markup income between 40 per cent and 50 per cent (six banks), category 3 includes banks with non-markup income between 30 per cent and 40 per cent (five banks), category 4 includes banks with markup income between 20 per cent and 30 per cent (nine banks), and category 5 includes banks with markup income below 20 per cent (two banks) (see table 1).

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[2]It compares the Pooled OLS against Fixed Effect model

[3]The test evaluates the consistency of an estimator when compared to an alternative, less efficient estimator which is already known to be consistent. It helps one evaluate if a statistical model corresponds to the data. The Housman test is used to differentiate between fixed effects model and random effects model in panel data.

[4]This is a statistical test of a simple null hypothesis that a parameter of interest is equal to some particular value. The main advantage of the score test is that it does not require an estimate of the information under the alternative hypothesis or unconstrained maximum likelihood.

Table 1: Total Non Mark-Up Income as a Proportion Total Income

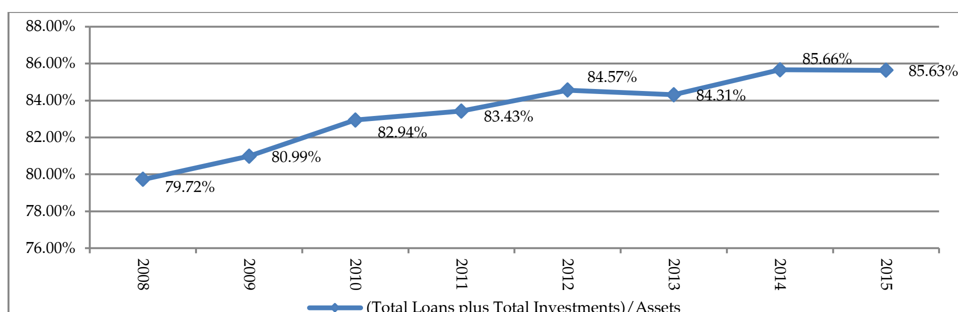
Category1		Category2		Category 3		Category 4		Category 5	
BANKS	2015	BANKS	2015	BANKS	2015	BANKS	2015	BANKS	2015
SBL	0.749153	CITIPK	0.472948	HBL	0.331843	BBL	0.282542	BAHL	0.152996
BOTPK	0.695489	FWBL	0.464245	ACBL	0.325852	SBLP	0.27512	BIPL	0.115836
NIB	0.584729	SB	0.443664	SNBL	0.324349	MCB	0.258249		
DBPK	0.532419	NBP	0.440559	BOK	0.318633	SCBP	0.251236		
BOP	0.503296	HMBL	0.431752	FABL	0.306979	BAFL	0.24135		
		JSBL	0.426247	UBL	0.304766	ABL	0.22941		
						DIBL	0.222688		
						MEBL	0.206607		
						ABBL	0.201227		

4. Exploratory Analysis

4.1. *Mark-up/Profit (Interest) Income*

The primary source of funds of a banking system are deposits generated through individual savers, private sector business concerns and the public sector. A major use of funds is the lending of money to those sectors. In general, the individuals are key savers and private businesses are key borrowers. The banks generate their net markup income as a spread between markup on credit loan's facilities net of profit payment to depositors. The asset base of banks also includes investments, and the profit on investments is considered to be a part of this type of income. Jaffar et. al.(2014)has indicated that as non-interest income increases, interest income also increases.One of the bank's vital roles is savings mobilization in productive assets that leads to the country's economic growth. We initiated our study to analyse the bank's major assets that include credit loans and investments; these major assets represent 85.63% per cent of the total operative commercial bank's assets in 2015. Credit loans generate revenue income by charging markup to their customers and banks earn profits on investments (see figure 1).

Figure 1: Total Loans and Total Investments as a Proportion of Total Assets

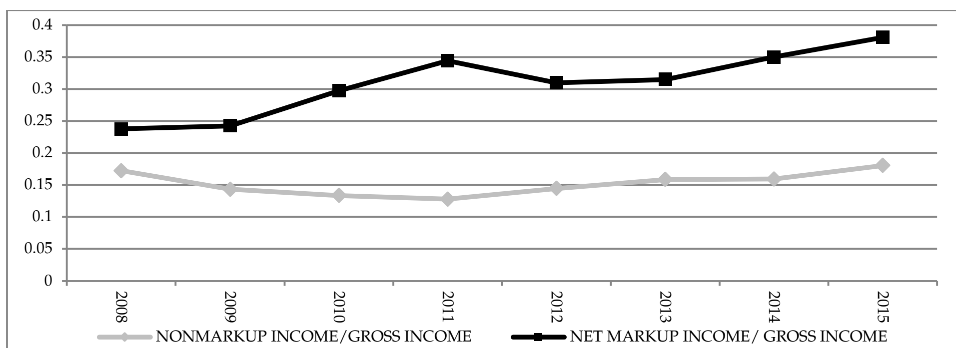


4.2. *Non-markup/Non-profit (Non-interest) Income*

Banks also provide a number of other services to their customers according to their expertise. These services depend solely on the bank's expertise and are not backed by any source of funds. The expertise base income includes capital market activities such as underwriting, mergers and acquisitions, advisory, market making, research and a host of other services like fees on services and commission income on difference types of transactions, gain on investments and foreign exchange.

We observed that over the study timeline, the net markup income as a proportion of gross income showed a higher degree of increase as compared to non-markup income as a proportion of gross income (see figure 2).

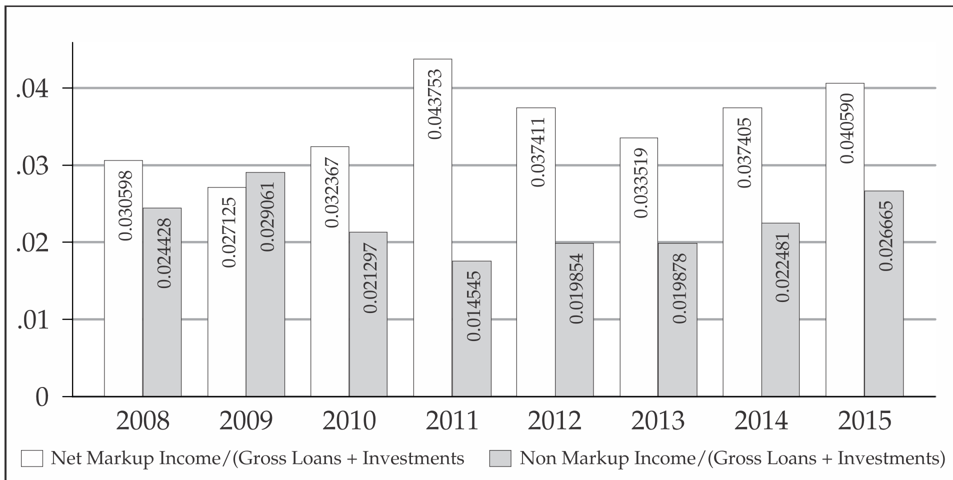
Figure 2: Non-markup and Net-markup income as a proportion of gross income



4.3. *Significance of Non Mark-up/Profit Base Income*

Extending upon the significance of non-markup income, we anlayze the proportion of net-markup income to profit base and non-markup income to profit base. Profit base is identified as the sum of gross loans and investments. We observed that the net-markup income increases from 3.06 per cent to 4.06 per cent, whereas the non-markup increases from 2.44 per cent to 2.67 per cent over the study timeline. These results highlight that non-markup income does not comprise a major part of revenue proportion if there is no expense bearing source. That is, non-mark up income is generated by banks which are not backed by any source of funds, and it is solely dependent upon bank's expertise and services that include fee and commission income, gain on investments and on foreign exchange (see figure 3).

Figure 3: Net Markup and Non Markup Income as a Proportion of Gross Income



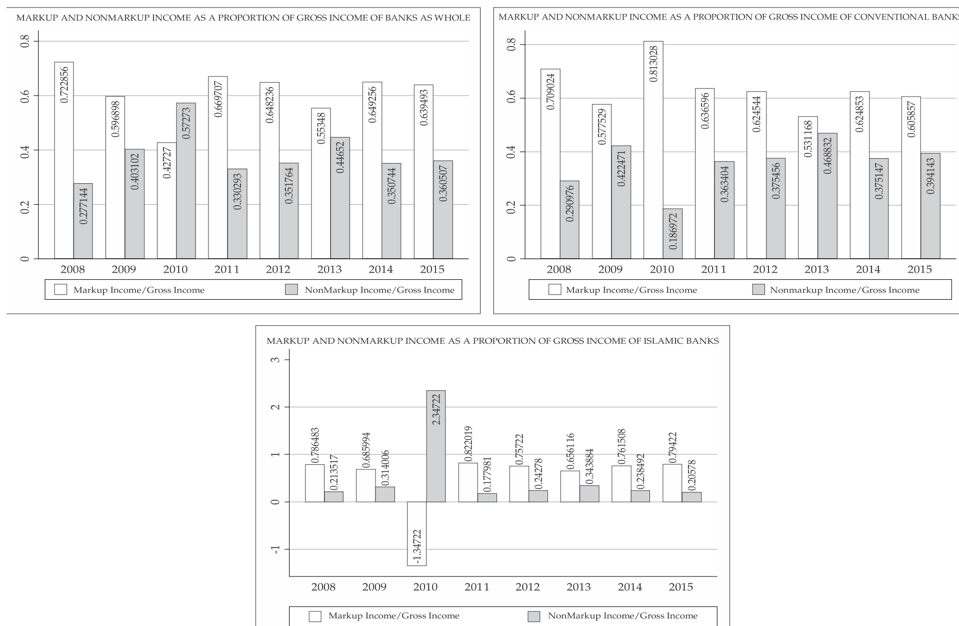
4.4. X type of Banks are More Focused on Non mark-up Base Income

We have compared the relationship between profit-bearing income[5] and non-profit-bearing income[6], with net profit as a profitability performance measure of banks as a whole, the comparison between conventional, and Islamic banks and across their categories. We observed that over the timeline, the markup income proportion decreased from 72.28 per cent to 63.95 per cent, whereas the non-markup income proportion increased from 27.71 per cent to 36.05 per cent of the banks as a whole. In comparison between conventional and Islamic banks, the markup income of conventional banks decreased from 70.90 per cent to 60.58 per cent, wherein Islamic banks, the markup income increased from 78.65 per cent to 79.42 per cent. Whereas, the comparison between banks in terms of non-markup income, we observed an increase from 29.10 per cent to 39.41 per cent in conventional banks, a decrease of nominal value in Islamic banks from 21.35 per cent to 20.58 per cent was observed. In comparison between Islamic and conventional banks, we observed that conventional banks were more focused on shifting from markup base income to non-markup base income as compared to Islamic banks (see figure 4).

[5]Profit bearing income means income against gross loans and investments.

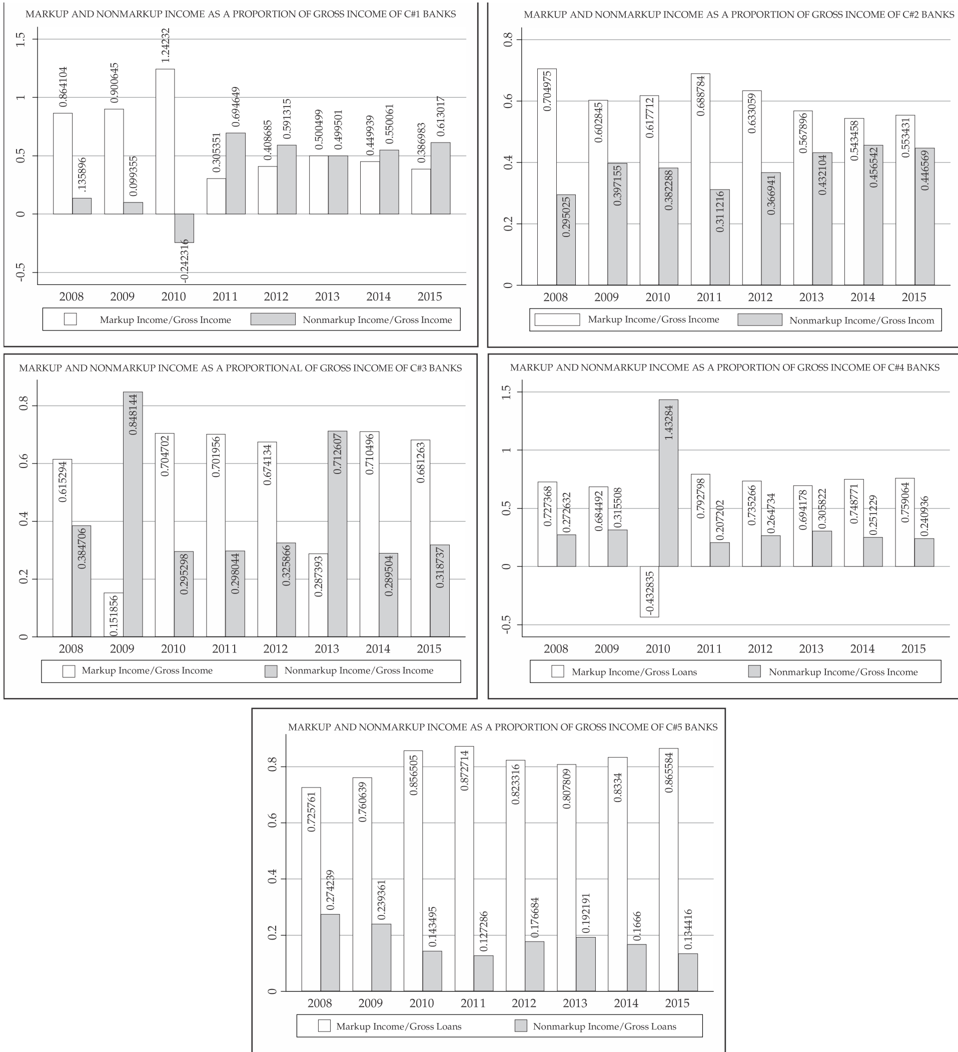
[6] Non-profit bearing income means income against fee and commission income, gain on investments and on foreign exchange, dividend income etc

Figures 4



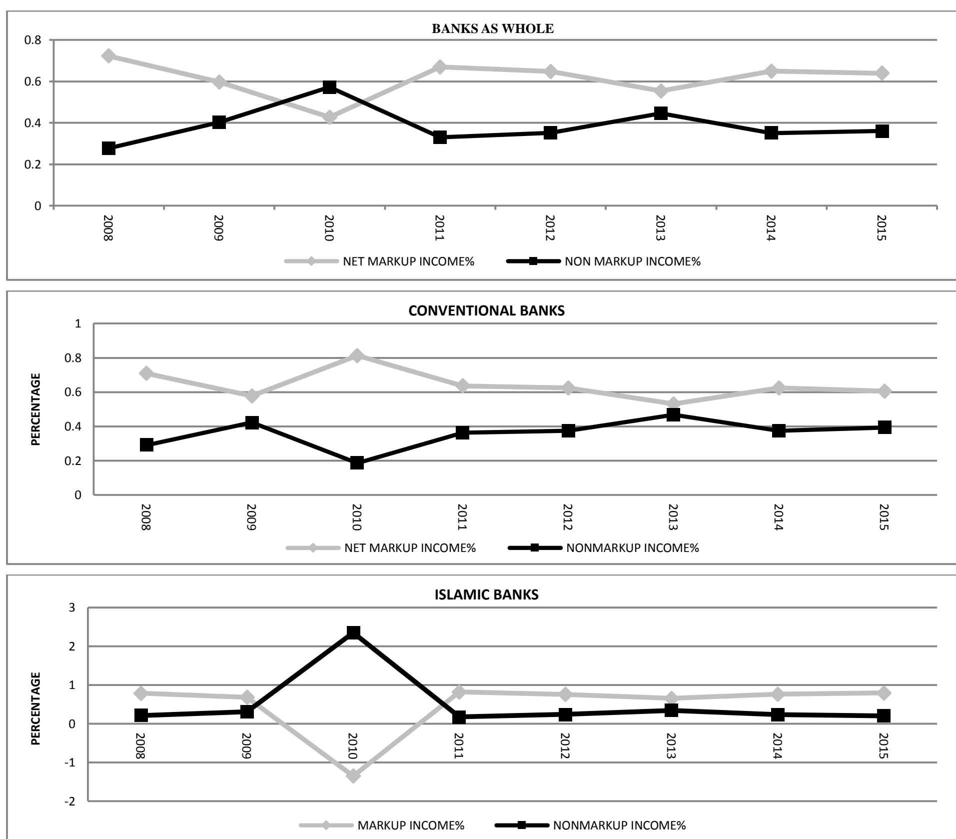
In comparison across the categories of banks over the study timeline, we observed that category 1 banks markup income decreased from 86.41 per cent to 38.70 per cent, whereas the non-markup income increased from 13.59 per cent to 61.30 per cent. Category2 banks markup income decreased from 70.50 per cent to 55.34 per cent, whereas the non-markup increased from 29.50 per cent to 44.66 per cent. Category3 banks mark-up income increased from 61.53 per cent to 68.13 per cent, whereas the non-markup income decreased from 38.47 per cent to 31.87 per cent. Category4 banks mark-up income increased from 72.74 per cent to 75.91 per cent, whereas the non-markup income decreased from 27.26 per cent to 24.09 per cent. Category5 banks mark-up income increased from 72.58 per cent to 86.55 per cent, whereas the non-markup income decreased from 27.42 per cent to 13.44 per cent. In comparison between the categories of banks, category1 banks demonstrated the highest degree of decline of mark-up income and the highest degree of increase in the non-mark up income (see figure 5).

Figures 5



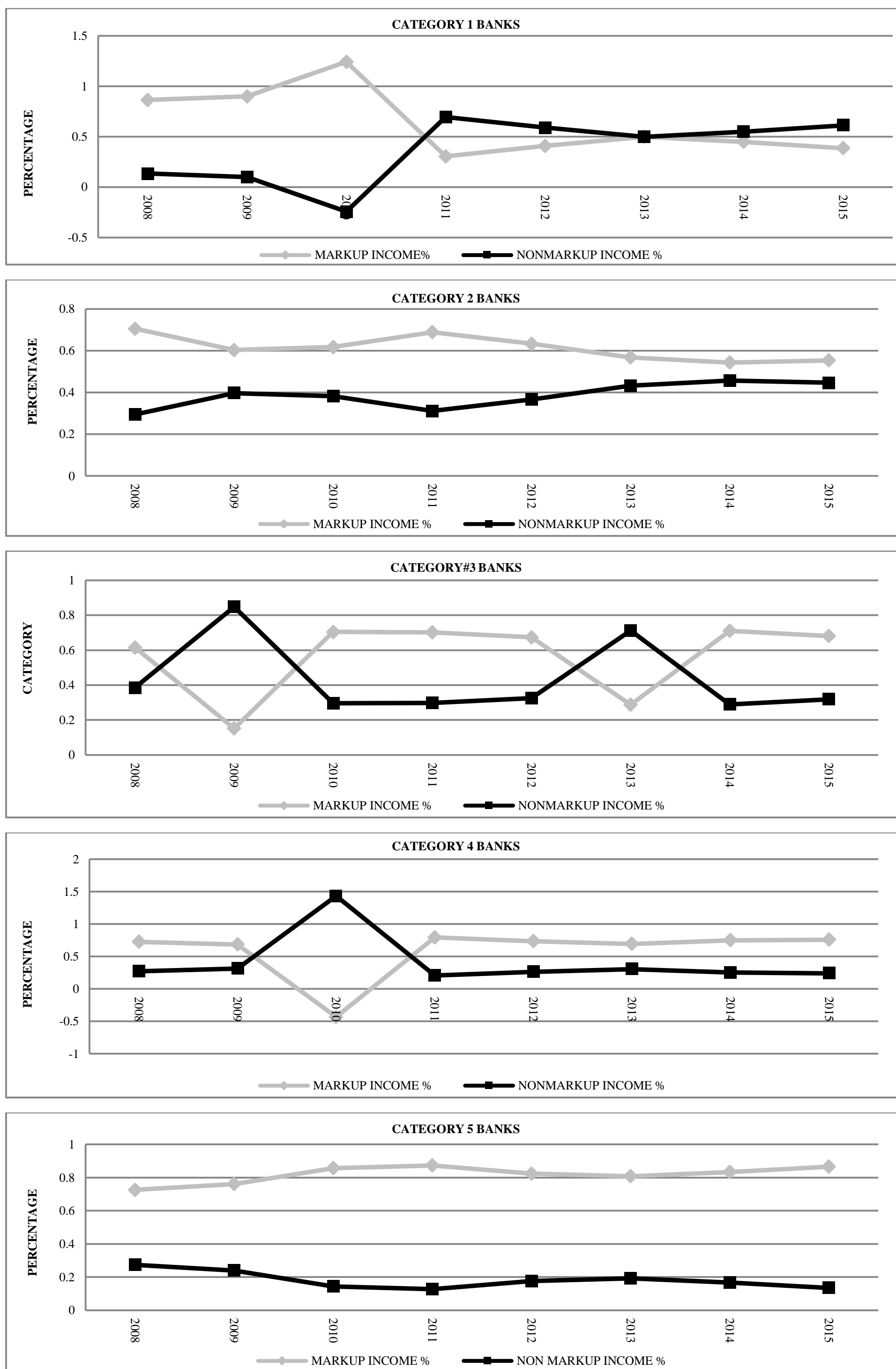
We have looked at the way the banks structure their profitability. In comparison between the conventional and Islamic banks, it was observed that both types of banks manage their profitability with higher levels of net-markup income. In the case of conventional banks, there was an increase in non-markup income portion, whereas in the case of Islamic banks,the increase did not reach significance in non-markup income observed over the study timeline (see figure 6).

Figures 6



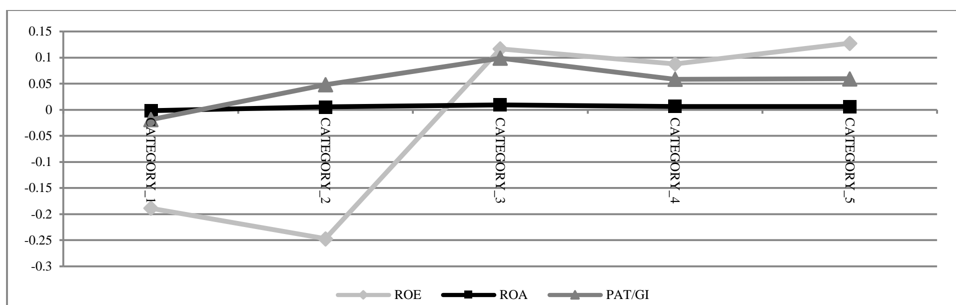
We have extended our study to look at the different categories of banks and the way the banks structure their profitability. In comparisons across the different categories of banks over study timeline, we observed that the level of non-markup income proportion in category1 banks exceeded that of mark-up income from 2011, and thereafter. In the case of category2 banks, markup income remained ahead throughout the study timeline. The results of category3 banks are quite interesting over the study timeline in terms of managing profitability: when markup income decreased, non-markup income immediately boosted in order to create equilibrium and vice-versa. The markup income of category4 banks remained ahead throughout the period of the study with the exception of 2010.The markup income of category5 banks remained ahead over the study timeline (see figure 7).

Figures 7



We have further extended our study to evaluate the average bank's performance over the study timeline from among the different categories of banks.Categories3, 4 and 5 each had positive returns on all performance measures, with category3 banks ahead among all categories (see figure 8).

Figure 8: Average Change over Study Timeline



5. Empirical Findings

5.1. *H_1: X Type of Banks are Most Efficiently Getting Advantage from their Expertise*

When analyzing the tendency of diversification of structural income based on type of bank, we find that conventional banks have higher levels of non-markup income. This holds especially true for conventional banks which demonstrate significant increase in assets and profit after tax as a proportion of gross income base. Regarding the increase in equity base, conventional banks also tilt towards non mark-up income, however, the results are not significant. In Islamic banks category, low- and high-performing banks show increase in asset and profit after tax as a proportion of gross income base, but results towards markup income are not significant. In the case of equity base, low-performing banks tilt towards non-markup and high-performing banks tilt towards markup income but the results are not significant (see table 2).

Table 2: Banks Mark-Up Income/Nonmark-Up Income Preference across Conventional and Islamic Banks

	Coef.	Std. Err.	P>t	Findings
ROA	-97.22071	25.04241	**0.000**	Conventional banks tilt toward non mark-up income significantly for both low and high performing banks with the increase in asset base.
ROA^2	-1597.861	707.9142	**0.025**	
ROAdumIsl	67.24858	109.3204	0.539	Islamic banks title towards mark-up income insignificantly for both low and high perform banks with the increase in asset base.
ROA^2_Isldum	8452.77	5671.055	0.138	
ROE	-2.641953	1.625221	0.105	Conventional banks tilt towards non mark-up income insignificantly for both low and high performing banks with increase in equity base.
ROE^2	-0.1759075	0.114738	0.127	
ROEdumIsl	-2.659097	9.84486	0.787	Islamic low performing banks tilt towards mark-up income and high performing banks tilt towards non mark-up income both insignificantly with the increase in equity base.
ROE^2_Isldum	23.38429	55.17138	0.672	
PATGI	-11.27491	2.749582	**0.000**	Conventional banks tilt towards non mark-up income significantly for both low and high performing banks with the increase in gross income.
PATGI^2	-21.64964	8.748449	**0.014**	
PATGIdumIsl	6.610952	9.99264	0.509	Islamic banks title towards mark-up income insignificantly for both low and high perform banks with the increase in gross income base.
PATGI^2_Isldum	37.28162	32.54739	0.253	

Low- and high-performing category1 banks tilted significantly towards non-markup income with an increase in asset, equity and net profit as a proportion of gross income base. Category2 low-performing banks tilt significantly toward non-markup income with an increase in asset and net profit as a proportion of gross income base; category 2 high-performing banks also tilted towards non-markup income with increase in asset and net profit as a proportion of gross income base, but this effect did not reach significance. In the case of increases in equity base, low- and high-performing banks significantly tilted towards non mark-up income. Category3 banks' results reflect mixed responses, but none reached significance. Category4 low-performing banks tilted significantly towards non-markup income with increase in asset, equity and net profit as a proportion of gross income base; category 4 high performing banks also tilted towards non-markup income with increase in asset, equity and net profit as a proportion of gross income base, but this effect did not reach significance. Category5 high-performing banks tilted significantly towards non-markup, and low-performing banks tilted towards markup

income with an increase in asset and net profit as a proportion of gross income base, but did not reach significance. In the case of increases in equity base, low-and high-performing banks tilted significantly towards markup and non-markup income (see table 3).

Table 3: Across Different Categories of Banks Mark-Up Income/Nonmark-Up Income Preference

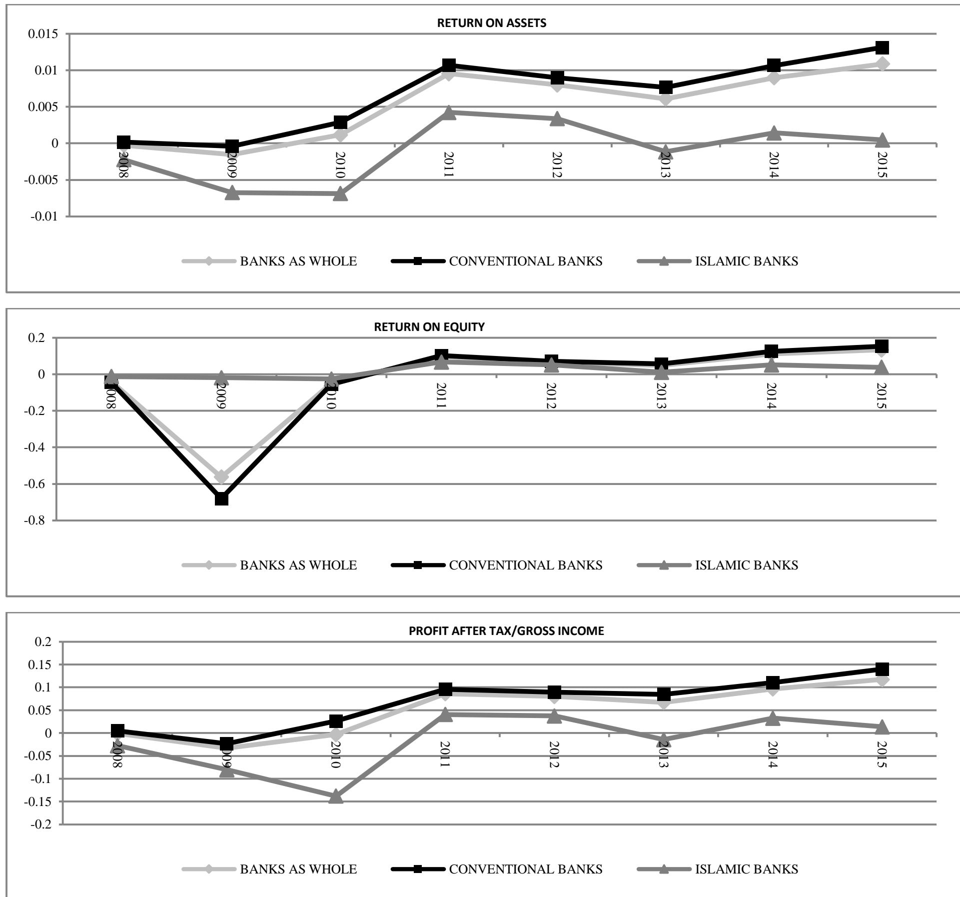
	Coef.	Std. Err.	P>t	Findings
Category 1 Banks Have Nonmark-Up Income Above 50%				
ROA	-87.40097	18.70943	**0.000**	Catagory#1 banks tilt toward non mark-up income significantly for both low and high performing banks with the increase in asset base.
ROA^2	-869.6766	467.0066	**0.071**	
ROE	-9.314507	2.617421	**0.001**	Catagory#1 banks tilt towards non mark-up income significantly for both low and high performing banks with increase in equity base.
ROE_2	-4.851097	1.61897	**0.005**	
PATGI	-12.24949	2.462526	**0.000**	Catagory#1 banks tilt towards non mark-up income significantly for both low and high performing banks with the increase in gross income.
PATGI_2	-17.68619	6.790217	**0.013**	
Category 2 Banks Have Nonmark-Up In Between 40%-50%				
ROA	-146.1755	38.79346	**0.000**	Catagory#2 banks tilt toward non mark-up income significantly for low and insignificantly for high performing banks with the increase in equity base.
ROA_2	-648.5112	1484.036	0.664	
ROE	-13.23473	3.867267	**0.001**	Catagory#2 banks tilt towards non mark-up income significantly for both low and high performing banks with increase in equity base.
ROE_2	-0.8903584	0.264361	**0.002**	
PATGI	-15.59698	4.062927	**0.000**	Catagory#2 banks tilt towards non mark-up income significantly for both low and insignificantly for high performing banks with the increase in gross income.
PATGI_2	-13.87862	15.67802	0.381	
Category 3 Banks have Nonmark-Up in Between 30%-40%				
ROA	17.21346	230.7639	0.941	Catagory#3 banks tilt toward mark-up income for low and tilt towards non mark-up income for high performing banks both insignificantly with the increase in asset base.
ROA_2	-9317.28	13581.73	0.496	
ROE	-13.3492	14.04685	0.347	Catagory#3 banks tilt towards non mark-up income insignificantly for both low and high performing banks with increase in equity base.
ROE_2	-88.4244	65.36441	0.183	
PATGI	2.305556	20.63361	0.912	Catagory#3 banks tilt towards mark-up income for low and tilt towards non mark-up income for high performing banks both insignificantly with the increase in gross income.
PATGI_2	-62.66914	114.8056	0.588	

	Coef.	Std. Err.	P>t	Findings
Category 4 Banks have Nonmark-Up in Between 20%-30%				
ROA	-13.20961	5.887164	**0.000**	Catagory#4 banks tilt toward non mark-up income significantly for low and insignificantly for high performing banks with the increase in asset base.
ROA_2	-20.8017	30.59382	0.598	
ROE	-13.23473	3.867267	**0.028**	Catagory#4 banks tilt toward non mark-up income significantly for low and insignificantly for high performing banks with the increase in equity base.
ROE_2	-0.8903584	0.264361	0.499	
PATGI	-13.16437	3.112261	**0.000**	Catagory#4 banks tilt towards non mark-up income significantly for low and insignificantly for high performing banks with the increase in gross income.
PATGI_2	-1.450415	12.84854	0.910	
Category 5 Banks have Nonmark-Up Below 20%				
ROA	182.3618	150.9664	0.249	Catagory#5 banks tilt toward mark-up income insignificantly for low and tilt toward non mark-up income significantly for high performing banks with the increase in asset base.
ROA_2	-36064.42	15918.14	**0.041**	
ROE	44.84789	24.40132	**0.089**	Catagory#5 banks tilt toward mark-up income significantly for low and tilt toward non mark-up income significantly for high performing banks with the increase in equity base.
ROE_2	-222.37	105.4152	**0.055**	
PATGI	4.556706	12.28626	0.717	Catagory#5 banks tilt towards mark-up income insignificantly for low and tilt towards non mark-up income significantly for high performing banks with the increase in gross income.
PATGI_2	-247.1393	107.471	**0.039**	

5.2. H_2: X types of Banks are Best Performers

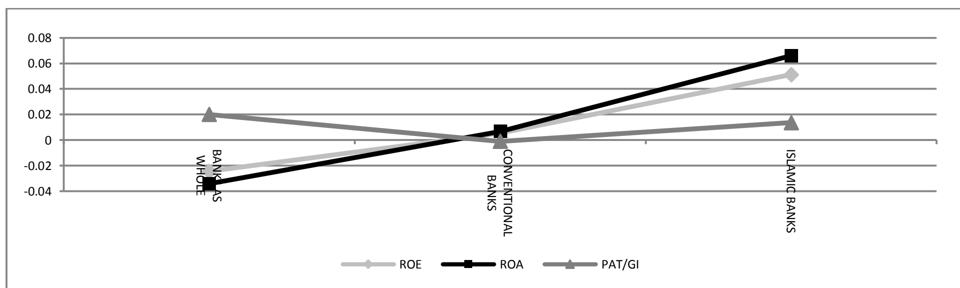
We used ROE, ROA and profit after tax as a proportion of gross income as performance measuring tools and developed the comparison across conventional and Islamic banks. We observed that conventional banks are ahead of Islamic banks in terms of managing their returns on equity, assets and profit after tax as a proportion of gross income (see figure 9).

Figures 9



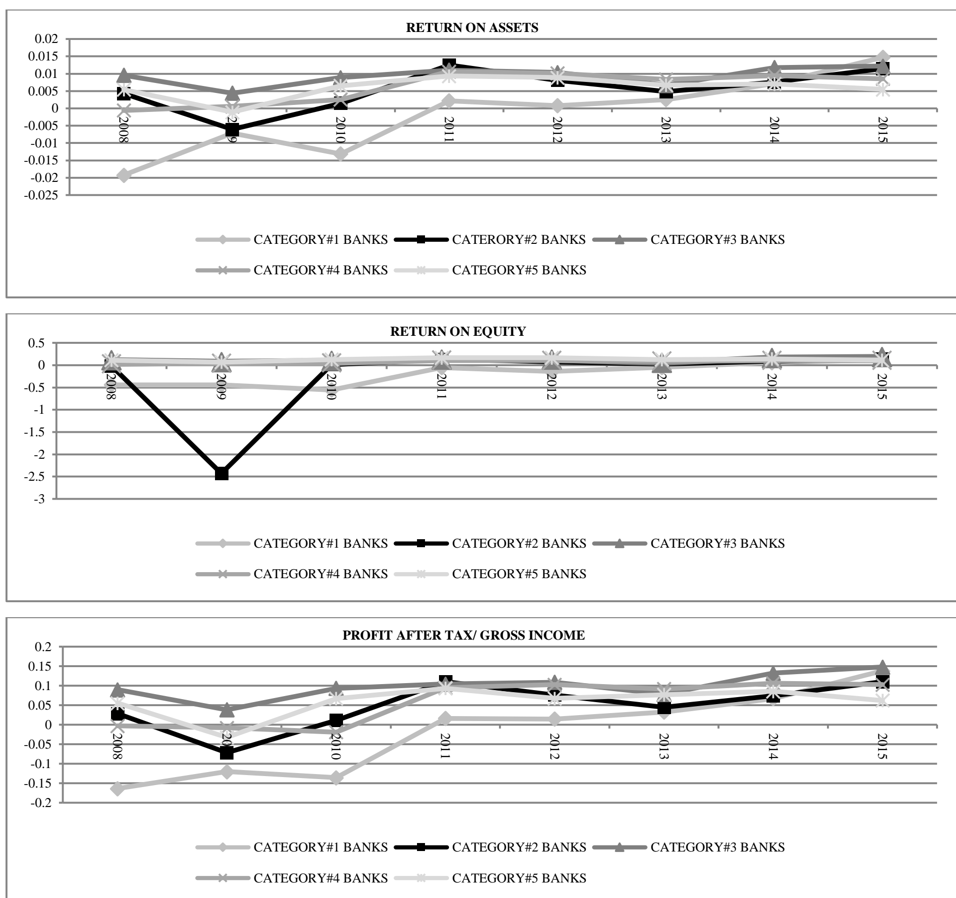
We further extended our study to evaluate the average bank's performance over the study timeline and observed that Islamic banks are ahead for all performance measures as compared to conventional banks (see figure 10).

Figure 10: Average Change over Study Timeline



In order to measure performance among different categories of banks, we used ROA, ROE and profit after tax as a proportion of gross income. We observed that, except for category1 banks, all categories of banks reflected a positive return on assets, equity and profit after tax as a proportion of gross income over the study timeline. In the case of category1 banks, they became profitable after 2012 (see figure 11).

Figures 11



6. Conclusions and Policy Implications

This study examined country's commercial banks structural preferences towards non-markup and markup income over an eight year span between two ownership and category modes. Exploratory and explanatory analysis were applied to determine the impact of structural income on the performance of the banking sector by using a non-linear

approach. Exploratory analysis based on ownership mode suggested that conventional and Islamic banks managed their profitability with a higher level of net-markup income. Whereas, the conventional banks demonstrate increasing tendency towards non-markup income portion and Islamic banks responded adversely. Empirical analysis further authenticated similar results. Under category mode, the comparison was among the five categories of banks were conducted. The exploratory results suggested increasing tendency of non-markup income of category 1 and category 2 banks. Empirical analysis also authenticated the same results, that is, category1 low- and high-performing banks reflecting increasing tendency significantly towards non-markup income with an increase in asset, equity and net profit as a proportion of gross income base. Category 2 low-performing banks significantly and high-performing banks insignificantly reflecting increasing tendency towards non-markup income with an increase in asset and net profit as a proportion of gross income base. Whereas, both low- and high-performing banks significantly reflecting increasing tendency towards non-markup income with an increase in equity base. Category 3 banks, exploratory results suggested nominal decreasing tendency in non-markup income and empirical analysis suggested insignificant mixed results. Category 4 banks, exploratory results also suggested nominal decreasing tendency in non-markup income and empirical analysis suggested low-performing banks significantly and high-performing banks insignificantly reflecting increasing tendency towards non-markup income with an increase in asset, equity and net profit as a proportion of gross income base. Category 5 banks exploratory results suggested decreasing tendency in non-markup income and empirical analysis suggested low-performing banks insignificantly reflecting decreasing tendency towards non-markup income with an increase in asset and net profit as a proportion of gross income base and significantly reflecting decreasing tendency towards non-markup income with an increase in equity and high-performing banks significantly reflecting increasing tendency towards non-markup income with an increase in asset, equity and net profit as a proportion of gross income base. We also looked into banks' performance in terms of profitability measures, and made comparisons between conventional and Islamic banks. The conventional banks performances are ahead of Islamic banks with regard to these terms. Among the categories of banks, category 1 banks are ahead of the others in terms of ROE and category3 banks are ahead in terms of net profit as a proportion of gross income.

A fundamental limitation of this study is both the time frame and the sample of analysis. Future research may increase the time frame of analysis and incorporate comparable economies for analysis to enhance the generalizability of results.

The practical implication of the results may guide policy makers in financial institutions to determine what level of diversification would be beneficial, especially with respect to their ownership and category modes. This will pinpoint profitable strategies and lead to greater competition within the industry. The results of this study show that diversification in structural income provides a balancing effect in profitability for both low- and high-performing banks. Therefore, policy makers should develop an optimal level of income proportion by designing effective utilizations of available resources without deviating from their core business ethics.

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The Lahore Journal of Business
7 : 1 (Autumn 2018): pp. 61–84

Financial Sophistication, Personality and Stock Market Participation: Theory and Evidence

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Abstract

In this empirical study, the authors examined the extent to which financial sophistication and personality effects stock market participation. Using archival research methodology, our hypothesis has been tested on a random sample of 451 stock market participants. Moderation has been tested through Andrew Hayes process. Extroversion and openness to experience positively impact stock market participation, while consciousness, agreeableness, and neuroticism have a negative impact. Financial literacy, trading experience and gender are the likely paths by which personality impacts stock market participation. Financial literacy can modify the relationship between some basic personality traits and stock market participation. It shows that behavior finance is not completely predetermined by one's DNA and also identifies which traits are less influenced by financial literacy. Perhaps this implies that these traits are more predetermined by one's innate characteristics.

This study provides an interdisciplinary contribution by extending Big Five taxonomy as a viable approach for stock market participation. Future research may investigate the impact of family resources, investment exposure, and parent's financial literacy, which were beyond the scope of the current study. The theoretical and practical implications of the study with respect to stock market participation are discussed.

Keywords: Financial sophistication; big five personality traits; behavioral finance, stock market participation.

JEL Classification: G11, G22, G23, A22, C01

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1. Introduction

Behavioral finance has sparked many debates in the area of stock market participation and researchers are continuously trying to find the drivers of stock market participation. The precise mechanism through which financial sophistication and personality affects stock market participation remains poorly understood. Although many researchers have examined stock market participation (Van Rooij, Lusardi & Alessie 2011; Balloch, Nicolae & Philip, 2014; Bodnaruk & Simonov, 2015; Hilgert, Hogarth & Beverly 2003; Jappelli & Padula, 2013; Abreu & Mendes, 2010; Calcagno & Monticone, 2015; Gaudecker & Von, 2015) there remains a lack of understanding between financial sophistication, personality and stock market participation. Personality may drive individuals towards stock market participation, because it has significant impact on the choices individuals make (Cobb-Clark and Schurer, 2012). For example the Big Five has association with financial and economical choices (Belcher, 2010), with risk aversion (Filbeck, Hatfield & Horvath, 2005), job performance (Zeigler-Hill, Besser, Vrabel & Noser, 2015) and household finances (Brown & Taylor, 2014). At the same time, the current study illustrate that financial literacy, trading experience and gender are the likely paths by which personality affects stock market participation.

Behavioral intentions in investment management have been largely explored by researchers (Mayfield, Perdue & Wooten, 2008), such as trust on financial markets (Guiso, Sapienza & Zingales, 2008), ability to understand investments (Jappelli & Padula, 2011), financial literacy (Cardak & Wilkins, 2009; Van Rooij et al., 2011), financial superiority (Christelis, Georgarakos & Haliassos, 2011) and investment behavior of individuals (Bodnaruk & Simonov, 2015; Gaudecker & Von, 2015). Financial literacy gained attention due to multifarious financial products in the market (Wang, 2009). Understanding the barriers to financial choice, defining and measuring impacts of financial literacy is vital (Huston, 2010). There is also a paucity of research in Pakistan with respect to personality, financial sophistication and stock market participation. Financial competence significantly affects performance of stock market participants (Bateman et al., 2012). Individuals with extensive financial knowledge are able to predict future financial crises and expressing uncertainty.

The majority of studies in the domain have been conducted in developed countries like the Netherlands and the United States. Being an important Asian state, multinationals are investing in Pakistan (Abbas, Raja, Darr & Bouckenooghe, 2012). Therefore, to provide researchers and

practitioners with confidence, there is a need to test the theories developed in Western settings, to check their generalisability in Asian settings (Tsui, Nifadkar & Ou, 2007). The next section of the study discusses literature review related to personality, financial sophistication and stock market participation. The methodology section presents information regarding data analysis techniques, estimation of results and details of Andrew Hayes (2012) process. The final section concludes with finding and implications.

2. Literature Review

2.1. Extroversion and Stock Market Participation

"Extroversion concerns the extent to which individuals are gregarious, assertive, and sociable versus reserved, timid, and quiet (Salgado, 1997, p.30)". "Extroversion includes characteristics such as excitability, sociability, talkativeness, assertiveness and high amounts of emotional expressiveness" (Barrick & Mount, 1991, p. 44). Extroverts have great need of social status, economic reward, authority and acknowledgment (Costa & McCrae, 1988, p. 712). Having the energy and optimism required to initiate and persist in coping efforts, like primary control management (providing solution and support for problems) and secondary control management (showing more positive or realistic way) (Lengua, Sandler, West, Wolchik & Curran, 1999), investors with extroverted personality show more eagerness and stimulation towards most of the portfolios (Mitteness, Sudek & Cardon, 2012). They prefer investment opportunities that balance out their alternatives. Even in the work place their satisfaction level as compare to neurotics enhance with the passage of time (Scollon & Diener, 2006). They also have more propensity to taking credit card debt than those with high conscientiousness (Brown & Taylor, 2014). This means that extroverts may be more eager to take risks using their tendency towards debt as an indicator of risk-taking tendency (Brown, Garino & Taylor, 2013). They feel happy to be social therefore; they interact with a diverse range of people (Zhao & Seibert, 2006). This establishes that individuals with more social contacts are risk lovers (Wasiuzzaman & Edalat, 2016). They are innovative and mainly achieve superior portfolio performance. Extroversion enhances the relationship between perceived passion and evaluation of funding potentials. Therefore, investors with the optimistic approach are more likely to make investments in stock (Olsen, 2012; Liu & Jiang, 2012). But this is not consistent as it may vary with variation in economic conditions (Liu & Jiang, 2012). Therefore, such people typically display a lot of

enthusiasm and excitement in their lives due to their extroverted personalities. Consequently, this study proposes the following hypotheses:

Hypothesis 1: Investors with extrovert personality shows more eagerness and motivation towards stock market participation.

2.2. Openness to Experience and Stock Market Participation

Openness to experience includes “individuals who are creative, curious, and cultured versus practical with narrow interests (Salgado, 1997, p. 30)”. “Openness is reflected in a strong intellectual curiosity and a preference for novelty and variety” (Komarraju, Karau, Schmeck & Avdic, 2011, p. 472). These individual show great elements of creativity, innovation, and novelty. They play with new ideas and prefer to take risks instead of working in traditional ways. Openness to experience personality possesses the element of creativity which leads to risk taking (George & Zhou, 2007). Like extroversion, those with openness to experience also possess entrepreneurial development skills (Caliendo, Fossen & Kritikos, 2011). Investors with high risk-taking tendencies and a high degree of openness to experience pursue a greater portfolio risk (Durand, Newby & Sanghani, 2008). Furthermore, personalities with high risk-taking tendencies and a high degree of openness to experience also enhance the trade manners of investors (Durand et al., 2008). These personalities have a direct relationship with hindsight and overconfidence biases relating to investments (Sadi, Rostami, Gholipour, and Gholipour, 2011). In the same vein, several studies (see for example Dohmen, Falk, Huffman, & Sunde, 2010; Borghans, Golsteyn, Heckman & Meijers, 2009) found a negative relationship between openness to experience and risk aversion. Mitteness et al. (2012) however, found that investors who are older, more intuitive, with a high open personality have the tendency to invest more. Similarly, Lauriola & Levin (2001) articulates that individuals with openness to experience are eager to take risks. Mayfield et al. (2008) found a positive correlation between risk and openness to experience. Individuals with openness to experience express a positive attitude towards online shopping, which represents their risk-taking tendency (Mendonca, 2016). Therefore, this study proposed that:

Hypothesis 2: The individuals having openness to experience trait show more zeal and inspiration towards stock market participation.

2.3. Neuroticism and Stock Market Participation

"Neuroticism concerns the degree to which the individual is insecure, anxious, depressed, and emotional versus calm self-confident and cool " (Salgado, 1997, p. 30-). "Neuroticism refers to the degree of neuroticism, impulse control, and anxiety" (Komarraju et al., 2011, p. 472-). Neurotic personalities do not encourage social relationships and are reluctant to get engage in a situation in which control is needed (Judge, Locke & Durham, 1998). In financial decision-making, behavior influences procedure, but the relationship between financial decision-making and genetics is poorly understood (Kuhnen, Samanez-Larkin & Knutson, 2011). It has emerged that mental and emotional stimuli have a great impact on investment decisions (Virlics, 2013). They further document that psychological evidence shows that neurotic persons avoid risky and complex financial choices (Virlics, 2013). Individuals with high neuroticism are risk-averse because they are depressed, insecure and anxious. This prevents them from becoming engaged in activities in which uncertainty exists. Therefore, the individuals who score high on neuroticism have a low tendency for risk-taking. The investors with a high level of neuroticism experience much more regret than those having lower neuroticism when facing poor investment decisions (Xiao, Wang & Liu, 2009). The findings of Lauriola and Levin (2001) demonstrate that individuals with high neuroticism have less tendency towards risk-taking. Therefore on the basis of the above arguments, this study hypothesizes that:

Hypothesis 3: Individuals with neurotic personalities may avoid risky and complex financial choices and participate less in stock market.

2.4. Conscientiousness and Stock Market Participation

"Conscientiousness measures the extent to which individuals are hardworking, organized, dependable, persevering versus lazy, disorganized, and unreliable" (Salgado, 1997, p. 30). "Conscientiousness is exemplified by being disciplined, organized, and achievement-oriented" (Komarraju et al., 2011, p. xx). Conscientious people are greatly concerned with the completion of a task (Stewart, 1996 p. 620). Instead of doing things with new patterns they prefer to do things in an organized way because doing things in new way requires innovation and creativity which ultimately leads to risk. The individual who has more concern about sensing or judging the things they have a lower tendency towards risk (Li & Liu, 2008). However, analysis shows that trading and disposition effects

are associated with conscientiousness (Durand, Newby, Tant & Trepongkaruna, 2013). Highly conscientious people do participate in stock markets. The influence of personality traits has a significant effect on investment management (Nga & Ken Yien, 2013). Individuals with high conscientiousness were found to manage money very well (Donnelly, Iyer & Howell, 2012). Because of proper money management, they have a low tendency towards debt and impulsive buying (Donnelly et al., 2012). With time, they review their exchange relationships to escape from any unpleasant situations due to risk aversion (Gosling, Rentfrow & Swann, 2003). Brown et al. (2013) depicts that the risk averse household has a negative correlation with debt level, and they are concerned about the future. Because conscientious individuals are risk averse, and creativity involves inherent risky, conscientiousness is inversely correlated with creativity (George & Zhou, 2001). On the basis of the above arguments, it is hypothesizing that:

Hypothesis 4: Individuals with the conscientiousness personality trait may not participate in stock markets

2.5. Agreeableness and Stock Market Participation

"Agreeableness includes attributes such as trust, altruism, kindness, affection, and other pro-social behaviors" (Barrick & Mount, 1991, p. 44). Agreeableness can also be defined as "being helpful, cooperative, and sympathetic towards others" (Komarraju et al., 2011, p. 472 p. xx). Individuals with agreeableness personality trait have a great tendency towards social work. They help people without benefit to themselves so they do not have concern with risk and return. Agreeable individuals have a greater tendency towards cooperation and will prefer not to engage in activity which requires a great deal of risk. The big five personality traits influence risk-taking behavior (Bashir, Azam, Nazish, Butt, Javed & Tanvir, 2013). Similarly, Durand et al. (2006) found that agreeableness is inversely correlated with investment in stock. Zuckerman and Kuhlman (2000) indicated that agreeableness is inversely correlated with risk-taking. Several studies showed a positive correlation between agreeableness and risk aversion. Brown and Taylor (2014) purports that individuals with the agreeableness trait are less likely to make an investment in stocks as compare to others because they are risk averse. Zuckerman and Kuhlman (2000) indicate that agreeableness is inversely correlated with risk-taking. Fenton-O'Creevy, Soane and Willman (2001) found that those with agreeableness have a lower tendency towards risk-

taking as compare to other personality traits. So, on the basis of above arguments, the study hypothesized that:

Hypothesis 5: Agreeableness is negatively correlated with stock market participation.

2.6. Financial Literacy and Stock Market Participation

Financial literacy is "the ability to make informed judgments and take effective decisions regarding the use and management of money" (Schagen & Lines, 1996, p.37). Lack of financial knowledge has an adverse impact on investors (Yoong, 2010). Investors with financial knowledge have suffered minimally from the recent financial crises due to their financial literacy (Bucher-Koenen & Ziegelmeyer, 2011). Individual risk-taking tendency depends upon knowledge of investment, wealth and gender (Dulebohn, 2002). Investment diversification and financial literacy are positively associated (Abreu & Mendes, 2010). Individuals with poor financial literacy lack confidence (Disney & Gathergood, 2013).

Therefore, association exists between financial knowledge and financial decisions (Jappelli & Padula, 2011). People equipped with financial information demonstrate more risky behavior than the masses who demonstrate avoidance behavior towards credit card usage (Borden, Lee, Serido & Collins, 2008). In the absence of financial knowledge, investors are vulnerable to forecast earlier period growth before making an investment (Muller & Weber, 2010). Individual behavior regarding investment in the stock market is quite different for every individual. Individuals avoid negative information and do not like to own diversified stocks (Barber & Odean, 2011). Therefore, level of education is a determinant of risk-taking; educated investors take more risk compare to less educated (Riley & Chow, 1992). More specifically, an individual's risk-taking tendency depends on their financial knowledge, such as the rules of investment, wealth and gender (Dulebohn, 2002). Financial literacy diminishes the risk-averse tendency of investors, and provides a variety of ways to deals with risk (Jung, 2015). Low financial knowledge leads to lower confidence in making financial dealings (Disney & Gathergood, 2013). The financial knowledge of investors is positively correlated with investment diversification (Abreu & Mendes, 2010). A household with trust and literacy have more chances of investments (Balloch et al., 2014). Individuals with overconfidence and over-optimism are significantly associated with risk-taking behavior (Breuer, Riesener & Salzmann, 2014). The overconfidence personality bias stimulates investors to invest in risky

assets (Dittrich, Guth & Maciejovsky, 2005). Overconfident individuals are more optimistic than rational investors (Kliger & Levy, 2010). The extrovert spends less time on judging risk (Li & Liu, 2008). Therefore, the study proposes that:

Hypothesis 6: There is a moderating impact of financial literacy on the relationship between personality and stock market participation.

3. Research Methodology

3.1. Collection of Data

To capture a representative sample the data were collected from the Pakistan stock exchange and from brokerage houses working in different cities of Pakistan through personal and professional links. Access to stock market participants was also made possible through the owners of brokerage houses. Of the 600 distributed questionnaires, we received 451 completed questionnaires, providing a response rate of 75 percent.

3.2. Measures for Extroversion

Extroversion was measured using a 5-point Likert scale against items such as "I see myself as someone who is talkative". The Likert scale ranged from 1 (strongly disagree) to 5 (strongly agree). Confirmatory Factor Analysis (CFA) was used to measure of the construct consistency. CFA results revealed GFI = 0.92 and RMSEA = 0.05. To create an overall measure of extroversion, the study averaged scores on all 8 items relating to extroversion, such that a higher score represents higher extroversion and a lower score represents lower extroversion. Cronbach's alpha for extroversion of was 0.84, which meets the acceptable standard for reliability Nunnally & Bernstein, 1994.

3.3. Measures for Openness to Experience

Openness to Experience was measured using a 5-point Likert scale against items such as "Is original, comes up with new ideas". The Likert scale ranged from 1 (strongly disagree) to 5 (strongly agree). CFA was used to measure of the construct consistency. CFA results revealed GFI = 0.95 and RMSEA = 0.05. To create an overall measure of openness to experience, the study averaged scores on all 10 items relating to openness to experience, such that a higher score represents higher openness to

experience and a lower score represents lower openness to experience. Cronbach's alpha for openness to experience of was 0.83, which meets the acceptable standard for reliability Nunnally & Bernstein, 1994.

3.4. Measures for Neuroticism

Neuroticism was measured using a 5-point Likert scale against items such as "I see myself as someone who can be tense". The Likert scale ranged from 1 (strongly disagree) to 5 (strongly agree). CFA was used to measure of the construct consistency. CFA results revealed GFI = 0.93 and RMSEA = 0.06. To create an overall measure of neuroticism, the study averaged scores on all 8 items relating to neuroticism, such that a higher score represents higher neuroticism and a lower score represents lower neuroticism. Cronbach's alpha for neuroticism of was 0.77, which meets the acceptable standard for reliability Nunnally & Bernstein, 1994.

3.5. Measures for Conscientiousness

Conscientiousness was measured using a 5-point Likert scale against items such as "I see myself as someone who does a thorough job". The Likert scale ranged from 1 (strongly disagree) to 5 (strongly agree). CFA was used to measure of the construct consistency. CFA results revealed GFI = 0.92 and RMSEA = 0.05. To create an overall measure of conscientiousness, the study averaged scores on all 9 items relating to conscientiousness, such that a higher score represents higher conscientiousness and a lower score represents lower conscientiousness. Cronbach's alpha for neuroticism of was 0.74, which meets the acceptable standard for reliability Nunnally & Bernstein, 1994.

3.6. Measures for Agreeableness

Agreeableness was measured using a 5-point Likert scale against items such as "I see myself as someone who is helpful and unselfish with other". The Likert scale ranged from 1 (strongly disagree) to 5 (strongly agree). CFA was used to measure of the construct consistency. CFA results revealed GFI = 0.91 and RMSEA = 0.06. To create an overall measure of agreeableness, the study averaged scores on all 9 items relating to agreeableness, such that a higher score represents higher agreeableness and a lower score represents lower agreeableness. Cronbach's alpha for neuroticism of was 0.72, which meets the acceptable standard for reliability Nunnally & Bernstein, 1994.

3.7. Measures for Stock Market Participation

"Stock market participation is defined as owning individual stocks and/or mutual funds" (Van Rooij et al., 2011, p. 450). The individual was considered a stock market participant if they were trading in stock, mutual funds or debt instruments. Stock market participation was assessed using 5 point Likert scale, which ranged from 1 (never participated) to 5 (very regularly participated), such that a higher score represents higher participation and a lower score represents lower participation.

3.8. Measure for Financial Sophistication

Financial literacy has been measured using *The Big Three*, a scale developed by Lusardi and Mitchell (2008; 2011). It contains questions regarding numeracy, interest compounding, inflation and risk diversification. *The Big Three* questions includes simple questions (Olivia, Mitchell & Lusardi, 2015) which differentiate between degrees of financial sophistication (Olivia et al., 2015), e.g. "Buying a single company stock usually provides a safer return than a stock mutual fund" (Lusardi & Mitchell, 2014). These questions are derived from different surveys such as the Health and Retirement Survey (HRS), Health and Retirement Study, National Longitude Survey of Youth and US National Financial Capability Study (Lusardi, 2008; Lusardi & Mitchell, 2011b; Lusardi & Mitchell, 2011; 2014).

3.9. Model Summary

Statistical Model to Examine the Impact of Extroversion on Stock Market Participation with Moderating Effect of Financial Literacy, Trading Experience and Gender

$$SMP = \beta_0 + \beta_1 (Ext) + \varepsilon_{SMP} \quad \text{(Model 1)}$$

$$SMP = \beta_0+\beta_1(Ext)+\beta_2(FL) +\beta_3(TE)+\beta_4(G) + \beta_5(Ext)(FL) + \beta_6(Ext)(TE) + \beta_7(Ext)(G) + \varepsilon_{SMP} \quad \text{(Model 1.1)}$$

Statistical Models to Examine the Impact of Openness to Experience on Stock Market with Moderating Effect of Financial Literacy, Trading Experience and Gender Participation

$$SMP = \beta_0 + \beta_1 (Open) + \varepsilon_{SMP} \quad \text{(Model 2)}$$

$$SMP = \beta_0 + \beta_1(Open) + \beta_2(FL) + \beta_3(TE) + \beta_4(G) + \beta_5(Open)(FL) + \beta_6(Open)(TE) + \beta_7(Open)(G) + \varepsilon_{SMP} \quad \text{(Model 2.1)}$$

Statistical Model to Examine the Impact of Neuroticism on Stock Market Participation with Moderating Effect of Financial Literacy, Trading Experience and Gender

$$SMP = \beta_0 + \beta_1 (Neur) + \varepsilon_{SMP} \qquad \text{(Model 3)}$$

$$SMP = \beta_0 + \beta_1(Neur) + \beta_2(FL) + \beta_3(TE) + \beta_4(G) + \beta_5(Neur)(FL) + \beta_6(Neur)(TE) + \beta_7(Neur)(G) + \varepsilon_{SMP} \qquad \text{(Model 3.1)}$$

Statistical Model to Examine the Impact of Conscientiousness on Stock Market Participation with Moderating Effect of Financial Literacy, Trading Experience and Gender

$$SMP = \beta_0 + \beta_1 (Cons) + \varepsilon_{SMP} \qquad \text{(Model 4)}$$

$$SMP = \beta_0 + \beta_1(Cons) + \beta_2(FL) + \beta_3(TE) + \beta_4(G) + \beta_5(Cons)(FL) + \beta_6(Cons)(TE) + \beta_7(Con)(G) + \varepsilon_{SMP} \qquad \text{(Model 4.1)}$$

Statistical Model to Examine the Impact of Agreeableness on Stock Market Participation with Moderating Effect of Financial Literacy, Trading Experience and Gender

$$SMP = \beta_0 + \beta_1 (Agree) + \varepsilon_{SMP} \qquad \text{(Model 5)}$$

$$SMP = \beta_0 + \beta_1(Agree) + \beta_2(FL) + \beta_3(TE) + \beta_4(G) + \beta_5(Agree)(FL) + \beta_6(Agree)(TE) + \beta_7(Agree)(G) + \varepsilon_{SMP} \qquad \text{(Model 5.1)}$$

Where:

SMP=Stock market participation, Ext = Extroversion, Open = Openness to experience, Neur = Neuroticism, Cons = Conscientiousness, Agree = Agreeableness, FL = Financial Literacy, TE = Trading Experience, and G = Gender

4. Results

Descriptive results are presented in tables given below which shows descriptive statistics of the variables.

Table 1: Descriptive Statistics of the variables

	N	Range	Min	Max	Mean	SD
SMP	451	4.00	1.00	5.00	3.5211	1.52064
Num	451	1.00	.00	1.00	.7894	.40822
Int.C	451	1.00	.00	1.00	.7871	.40978
Inflat.	451	1.00	.00	1.00	.7871	.40978
TVM.	451	1.00	.00	1.00	.7849	.41133
M.illu.	451	1.00	.00	1.00	.7871	.40978
Risk.	451	1.00	.00	1.00	.7849	.41133
Port.	451	1.00	.00	1.00	.7783	.41587
Ext.	451	4.00	1.00	5.00	3.7470	1.01178
Agree.	451	4.00	1.00	5.00	3.5556	.62710
Cons.	451	4.00	1.00	5.00	3.3954	.68951
Neur.	451	4.00	1.00	5.00	3.0989	.83313
Open.	451	4.00	1.00	5.00	3.5430	.74049
Age	451	4.00	1.00	5.00	1.9313	.84442
TE	451	5.00	.00	5.00	3.1463	1.48200

Note: N= 451; SMP = Stock Market Participation, Num = Numeracy, Int.C = Interest Compounding, Inflat = Inflation, TVM = Time Value of Money, M.Illu = Money Illusion, Risk= Risk Diversification, Port = Portfolio management, Ext = Extroversion, Agree= Agreeableness, Cons. = Conscientiousness, Neur. = Neuroticism, Open. = Openness to Experience, TE = Trading Experience, FL = Financial Literacy,

Table 2: Variables, No. of Item and Cronbach Alpha Reliabilities

S. No.	Name of Variable	No. of Items to Measure Construct	Cronbach Alpha Reliabilities
1	Extroversion	8	0.840
2	Openness to experience	10	0.837
3	Neuroticism	8	0.778
4	Conscientiousness	9	0.746
5	Agreeableness	9	0.725

Table 3: Variables, Coefficients, Se, T and P values by Andrew F. Hayes Process

Variables	B	SE β	t value	P value	LLCI	ULCI
Extroversion	0.1996	.0737	2.7063	.0071	.0547	.3445
Openness to Experience	0.1852	.0705	2.6267	.0089	.0466	.3237
Neuroticism	-0.0321	.0575	-.5590	.5764	-.1451	-.0808
Consciousness	-0.1799	.0730	-2.4649	.0141	-.3233	-.0365
Agreeableness	-0.4404	.0850	-5.1829	.0000	-.6074	-.2743

Table 4: Mean, Standard Deviations, Correlations, and Reliabilities
Extroversion, Openness to Experience, Neuroticism, Conscientiousness, Agreeableness, Emotional Quotient

		M	SD	1	2	3	4	5	6	7	8	9	10
1.	Age[a]	35.00	.84										
2.	G	0.96	.17	.122**									
3.	TE	3.67	1.51	.360**	.181**								
4.	FL	0.57	.33	.009	.028	.134**							
5.	Extroversion	3.76	1.06	.026	.044	-.073	.154**	(0.84)					
6.	Openness	3.54	.74	-.001	.080	-.002	.120*	.325**	(0.83)				
7.	Neuroticism	3.09	.83	.091	.006	.172**	-.187**	-.339**	-.234**	(0.77)			
8.	Conscietiousnes	3.39	.68	.100*	-.011	-.165**	.180**	-.031	.046	-.101*	(0.74)		
9.	Agreeableness	3.55	.62	-.028	-.063	-.281**	.104*	.162**	.195**	-.156**	.219**	(0.72)	
10.	SMP	3.51	1.51	.134**	.171**	.360**	.250**	.429**	.255**	-.186**	-.141**	-.168**	1

Note: N= 451; Alpha Reliabilities are presented in the parentheses. G= Gender, TE= Trading Experience, FL= Financial Literacy, SM= Stock Market Participation, M= Mean, SD= Standard Deviation. Gender type: 0 = female, 1= male

Table 5: Main Effects and Moderated Regression Analyses

		Stock Market Participation	
		B	**ΔR²**
Step1	(Constant)	1.344	
	Age	-.004	
	G	.955	
	TE	.342***	0.141***
Step 2.	Age	.015	
	G	.570	
	TE	.358***	
	Ext	.54***	
	Open	.23***	
	Neur	-.146*	
	Cons	-.189*	
	Agree	-.412***	
	FL	1.17 ***	0.332***
Step 3.	ExtxFL	0.073*	
	OpenxFL	0.078*	
	NeurxFL	0.153	
	ConsxFL	0.048	
	AgreexFL	0.035	0.002***

Note: N= 451; G=Gender, TE=Trading Experience, Ext=Extroversion, Open=Openness to experience, Neur=Neuroticism, Cons = Consciousness, Agree=Agreeableness, FL=Financial Literacy, SM = Stock Market Participation.

The results of table 3 showed that the correlation between agreeableness and stock market participation was negative and significant (β = -0.168, $P < 0.05$). Extraversion and openness to experience were positively and significantly correlated with stock market participation (β = 0.429, $P < 0.05$) and for openness to experience (β = 0.255, $P < 0.05$). Conscientiousness and neuroticism were negatively correlated with stock market participation (β = -0.141, $P < 0.05$) and for neuroticism (β = -0.186, $P < 0.05$). Correlation between financial literacy and stock market participation was positive and significant (β = 0.250, $P < 0.05$).

The regression result shows β coefficients, P values and R square. R square is 0.298 and probability value is $P < 0.001$ which shows the change explained by extroversion in dependent variable. The sign of the coefficient of extroversion was positive with a value of 0.570, t value is 8.943 and p value is $P < 0.001$ which means that extroversion has positive and

significant relationship at 5% significance level with stock market participation. Therefore investors with extrovert personality are more eager and willing to participate in stock market. The direct regression between openness to experience and stock market participation showed, R square is (0.298) and probability value is ($P = 0.000$) which show the change explained by the model in dependent variable. The coefficient sign of openness to experience is positive and the value is (0.339), t value is (3.834) and P value is ($P = 0.000$) which means that openness to experience has positive and significant relationship with stock market participation. Neuroticism and stock market participation showed the following results. R square is (0.298) and probability value is (0.000) which show the change explained by the model. Coefficient neuroticism was negative and the value is (-0.109), t value is (-1.386) and p value is (0.166) which means that neuroticism has negative and significant relationship with stock market participation. Regression results proved the third hypothesis of the study that the individuals with neurotic personality avoid risky and complex financial choices does not participate in stock markets. The regression table shows the direct regression between conscientiousness and stock market participation. R square is (0.298) and probability value is (0.000) which show the change explained by the model. Coefficient of conscientiousness has value (-0.176), t value is (-1.935) and p value is (0.054) which means that conscientiousness has negative and significant relationship with stock market participation. The result proves the fourth hypothesis of the study that the individuals with conscientious personality have fewer chances of their participation in stock markets. Regression results between agreeableness and stock market participation showed R square is (0.298) and probability value is (0.000) which show the change explained by the model. Coefficient of agreeableness was (-0.603), t value is (-6.136) and p value is (0.000) which means that agreeableness has negative and significant relationship at 5% level of significance with stock market participation. Results proved fifth hypothesis of the study that the individuals' high in agreeableness, have less chances of stock market participation.

5. Conclusion

Extroversion and openness to experience have significant and positive impact on stock market participation, in line with Nicholson, Soane, Creevy and Willman (2005). Investors who score high on openness have the tendency to invest (Mitteness et al., 2012). "Openness is reflected in a strong intellectual curiosity and a preference for novelty and variety" (Komarraju et al., 2011, p. 472). This novelty and variety

induce individuals towards stock market participation. Neuroticism and conscientiousness have a negative impact on stock market participation. Neurotics avoid risky and complex financial choices Virlics (2013) and possess low tendency towards risk taking (Lauriola & Levin, 2001). They experience regret in the face of poor investment decisions (Xiao, Wang & Liu, 2009). Agreeableness also has a negative impact on stock market participation in line with the portfolio theory of Markowitz, (1952) which articulates that risk taking is associated with risk attitude (Zuckerman & Kuhlman, 2000). Financial literacy moderated the relationship between extroversion; openness to experience and stock market participation but does not moderate in the case of neuroticism, conscientiousness and agreeableness. The findings protect investors from scams and frauds and will boost confidence towards stock market participation. Future research should investigate the impact of Family Resource Management Theory (FRMT), along with city wise analysis of stock market participants. However, family background, resources, investment exposure and family financial literacy were beyond the scope of the current study.

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The Lahore Journal of Business
7 : 1 (Autumn 2018): pp. 85–111

The Role of Consumer Ethnocentrism Propensity and Brand Personality in Purchasing Domestic Products

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Abstract

The current study was designed to observe the impact of consumer ethnocentrism and brand personality on purchase intention, perceived quality and brand trust in the Pakistani clothing market. Famous Pakistani clothing brands were selected to examine the impact of consumer ethnocentrism and brand personality on purchase intention, evaluation of the product and brand trust. 300 questionnaires were distributed to consumers. The response rate was 90%. The sample comprised 52.2% males and 47.8% females. Two-level Structural Equation Modelling using LISREL 8.80 was employed to determine the convergent and discriminant validity. The study has concluded that Pakistani consumers are highly ethnocentric and ethnocentrism strongly affects purchase intention of domestic brands among Pakistani customers. The research found that brand image has a greater effect on purchase intention, perceived quality and brand trust than consumer ethnocentrism. Results also demonstrate that quality, as perceived by consumers, influences purchase intention which indicates that alone, brand personality and consumer ethnocentrism tendencies do not guarantee sales of local brands. This study puts both consumer ethnocentrism and brand personality into one model to access its role on consumer behavior. The results of the research can assist domestic marketers to comprehend the role of consumer ethnocentrism propensity and brand personality in purchasing domestic products, quality perception and building trust among young customers. To the best of the researchers' knowledge, it is one of the pioneer studies in the context of Pakistan that casts light on the significance of ethnocentrism in evaluating domestic products by contributing to the literature of marketing.

Keywords: Consumer's ethnocentrism, perceived quality, brand personality, purchase intention, brand trust

JEL Codes: M10, M30, M31, M37

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1. Introduction

Globalization is one of the most discussed issues in the current era, which has facilitated opportunities for companies to provide goods and services throughout the world (Brkic, Corbo, & Berberovic, 2011). Simultaneously, it has created considerable challenges for international and local marketers (Upadhyay & Singh, 2006). On the other hand, consumers have a variety of alternative choice for purchase option which includes mostly foreign brands and products. The era of globalization and liberalization started from the fall of the Berlin Wall, followed by the decline of the Soviet Union, which resulted in a higher growth of world trade (Shankarmahesh, 2006). Due to the involvement of The General Agreement on Tariffs and Trade (GATT) and the World Trade Organization (WTO), last decade witnessed a reduction in tariff barriers but non-tariff barriers still exist. According to Hennessey & Jeannet (1998), any tariff barriers to international trade is a non-tariff barrier which is not formally imposed. Much consideration is being given to non-tariff barriers in international trade negotiations with regional and country blocks to accomplish product-related benefits. Consumer ethnocentrism is one such non-tariff barrier (Li, Yang, Wang& Lei, 2012). Consumer ethnocentrism is the rejection of foreign-produced goods, irrespective of quality or price, in favor of local products for patriotic and nationalistic reasons. It is effortful for the consumer to procure additional information on foreign product quality which ultimately results in rejection of the foreign products (Brkic et al., 2011).

Consumer attitudes towards foreign products have been an important issue for marketing researchers (Klein, Ettenson & Morris, 1998). Consumer ethnocentrism is becoming a central focus in marketing, and globalization has made its role even more significance (Caruana, 2005). Past research has continuously heighted its ability to influence the intentions of the consumers and their quality evaluations (e.g. Wang & Yang, 2008; Wang et al., 2009).

Brand personality is an important marketing concept which affects the consumer decision-making process and provides the basis for brand differentiation (Aaker, 1997). It describes a brand as having human-like traits which can enhance consumers' consumption and brand choice (Sirgy, 1982), increases brand loyalty and trust (Fournier, 1998), and positively influence the purchase intention of the consumers (Wang & Yang, 2008). It is a key factor in product evaluation and purchase behavior for both domestic and foreign brands. Whether the brand is

domestic or foreign, strong brand personality secures the advantage of positive quality perceptions and substantial purchase intentions by lowering the consumer ethnocentrism tendency (Tong & Li, 2013).

Pakistan's textile sector is acclaimed worldwide. Being the largest manufacturing sector in Pakistan, the textile sector ranks in 8th position in terms of largest textile exports, holds 4th position for largest cotton manufacturer, adds 8.5% to Gross Domestic Product (GDP) and absorbs 45% of total manpower of the country. The story of spending on cloth by Pakistani consumers is an interesting fact. From 2002 to 2012, expenditures on cloth increased by 7.4% p.a. whereas per capita expenditure by Pakistani consumers rose by 11% for the same period. Revenue of cloth manufacturers also rose by 29% which surpasses the revenue generated from export sales. These statistics show that consumption will continue. Considering the strengthening Pakistani cloth market, this study intends to investigate the impact of consumer ethnocentrism and brand personality on purchase intention, perceived quality and brand trust in the Pakistani clothing market. The current study contributes to the marketing literature as the interaction of consumer ethnocentrism and brand personality has not gained much recognition in the literature. Brand personality can negatively influence consumers demand for local brands, and enhance the demand for foreign brands with strong brand personality. It is important to highlight that interaction of consumer ethnocentrism and brand personality occurs in the purchasing process.

This study aims to answer the followings research questions:

- Does ethnocentrism affect the consumers' purchase intentions and quality perceptions of local brands?
- Does brand personality affect consumers' purchase intentions and quality perceptions of local brands?
- Is brand personality more important than consumer ethnocentrism in influencing consumer quality perceptions and purchase intentions of local brands?
- Does consumer ethnocentrism affect consumers' brand trust in domestic products?
- Does brand personality affect consumers' brand trust in domestic products?

In the next section, the theoretical framework of the current study is explained along with the review of the literature. The methodology

section is followed by data analysis and results sections. In the last section, the discussion about the research findings concludes with future direction and limitations.

2. Literature review

Despite of emergence of globalization, barriers to international trade still exist (Tong & Li, 2013), such as consumer ethnocentrism (Li et al., 2012). The ethnocentrism notion derives from social psychology. Sumner (1906) first introduced this term as "the view of things in which one's own group in the center of everything, and all others are scaled and rated concerning it" (p. 13). Ethnocentrism is the predisposition of people to give favor to others who are similar in terms of culture, while rejecting those who are culturally divergent from them (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950), thus it is "Evaluation process of judging all other cultures by making standards of one's own culture" (Upadhyay & Singh, 2006, p. 60). Ethnocentrism as a concept in marketing was introduced by Schooler (1971) and Shimp and Sharma (1987). It operationalizes the consumer ethnocentrism concept by developing a complete scale called CETSCALE (consumer ethnocentrism tendency scale) to measure the consumer ethnocentrism. Ethnocentric consumers consider the purchasing of foreign products as improper and immoral which goes against the interest of one's own country. Ethnocentric consumers differentiate between domestic and foreign products, and have a strong belief that buying foreign products will hurt to domestic economy as it leads to unemployment and causing jobs to be lost (Shimp & Sharma, 1987). It has two features: foremost, it is concerned with love for one's own country and fear of losing control of one's economic interest by virtue of imports. Secondly, the desire not to buy foreign products, (Tong & Li, 2013) as buying foreign products is considered an economic as well as a moral issue (Shimp & Sharma, 1987).

The sources of ethnocentrism tendencies among individuals are patriotism and nationalism (Sharma, Shimp, & Shin, 1995). Feelings of attachment and loyalty refer to patriotism, while nationalism encircles the views that one's country is greater than others (Kosterman & Feshbach, 1989). There is a significatant relationship between one's attitude towards one's country, foreign countries, and consumer ethnocentrism (Han, 1988). The greater the consumer ethnocentrism, the more they will avoid buying foreign products for nationalistic and patriotic reasons (Durvasula, Andrews, & Netemeyer, 1997), regardless the quality of foreign products (Supphellen, Magne; Rittenburg, 2001).

3. Hypothesis Devoloment

Since consumer ethnocentrism is the tendency of consumers towards the purchase of national products, outcomes of consumers' ethnocentrism have always been the focus of researchers as well as international marketers (Puzakova, Kwak, & Andras, 2010). To cultivate marketing and communication approaches within national and foreign boundaries, the marketers provide insight into the tendencies of ethnocentric consumers (Nadiri & Tümer, 2010). Many studies have addressed consumer ethnocentrism by measuring willingness to buy domestic products (Wang & Chen, 2004) and purchase intention (Han, 1988) as constructs. Individuals with high ethnocentric tendency negatively evaluate foreign products regardless the inferior quality of home-made products (Shimp & Sharma, 1987). There is a positive relationship between consumer ethnocentrism and likelihood to purchase domestic products, consumer ethnocentrism is negatively related to consumer purchase of foreign products (Nguyen, Nguyen, & Barrett, 2008). In developing countries, consumer ethnocentrism seems to be lower (Upadhyay & Singh, 2006). Individuals in developing nations have a tendency towards foreign goods (Agbonifoh & Elimimian, 1999). Consumers in these countries consider domestic products as inferior quality compared to foreign products (Agbonifoh&Elimimian, 1999). Moreover, mere entnocentrism is not enough to push a consumer to purchase a particular product, rather percieived quality bridges the gap between ethnocentrism and purchase intention (Wang & Yang, 2008).

As the impact of consumer ethnocentrism has not been tested empirically in the Pakistani market, the current study endevours to fill the research gap by examining whether ethnocentrism has an effect on Pakistani consumer evaluation and purchase intention. Based on the literature, the following hypotheses were developed to test ethnocentrism in the Pakistani market.

H_1: Consumer ethnocentrism positvely affects consumers' purchase intention of domestic brands.

H_2: Consumer ethnocentrism positvely influences consumers' quality perception of domestic brands.

H_3: Perceived quality mediates the impact of consumer ethnocentrism on purchase intentions.

3.1. Brand Personality

The concept of brand personality attracted marketing researchers during the 1980s and 1990s (Parker, 2009). Much consideration has been given to brand personality in consumer research behavior which is described as human traits attached to specific brand. The act of perusing consumers to perceive brands as having human-like traits occurs by applying human characteristics to a specific brand (Aaker, 1997). It is personality characteristics linked with humans that consumers visualize about a specific brand. The idea is that, just like humans, brands also have personalities and consumers may choose those brands whose personalities are matched with their own (Tuan, Tat, Shamsuddin, Rasli, & Jusoh, 2012). Brand personality is considered as an effective advertisement tool, captivating to targeted customers for building brand image (Gwinner & Eaton, 1999). Brand personality, like human personality, has dual aspects that are distinctive and enduring (Phau & Lau, 2000). For example, Pepsi is related with a fashionable, energetic, and stylish man, while Coca Cola is symbolized as a gentle and cautious man (Wang & Yang, 2008), BMW connotes sophistication, Nike signifies fitness and Kodak conveys sincerity (Phau & Lau, 2000).

Formation of brand personality can be categorized into direct and indirect sources (Aaker, 1997). The direct source of brand personality consists of human traits attached with the typical brand users, Companies' CEO, corporate employees, and brand spokesperson and brand endorsers. In contrast, the indirect brand source comes from product related decisions such as product category, product characteristics, price, advertising strategy, brand name and distribution. Further, brand personality has symbolic value rather than functional benefits (Keller, 1993). Aaker (1997) introduced five dimensions through which brand personality can be measured. They are competence, sincerity, excitement, sophistication and ruggedness. Consumers' perceptions about these dimensions are connected to brand benefits (Maehle, Otnes & Supphellen, 2011). These benefits are: operational, existential and emblematic (Park, Jaworski & Maclnnis, 1986). Although many models have been considered by researchers (Freling, Crosno & Henard, 2010), this model (Aaker 1997) is most frequently used to access brand personality.

As a part of brand positioning strategies, if properly transmitted, brand personality may have greater influence in the mind of the consumer than any other communication strategy (Burke, 1994). This

difference simplifies the decision process for the consumer and further enhances the brand awareness and brand loyalty (Phau & Lau, 2000). Brand personality creates confidence and favorable perceptions in the mind of customers by incubating a strong purchasing environment (Phau & Prendergast, 2000). Generally, for the marketer, brand personality is considered as an imperative instrument for capturing the attention of targeted customers and aids to build brand image (Wang, Yang & Liu, 2009). The world leading brands work hard to place personalities into their brands as a source of brand differentiation to create a competitive edge (Tong & Li, 2013). Human personality characteristics appear in customers' minds when they imagine a particular brand, and thus brand personality becomes a source of brand differentiation (Aaker, 1997; Wang et al., 2009). Consumer may have greater self-respect by purchasing and using those brands which are saturated with human personalities (Belk, Bahn, & Mayer, 1982; McCracken, 1986). Past researches have witnessed that brand personality can enhance consumers' consumption and brand choice (Sirgy, 1982), increases brand loyalty and trust (Fournier, 1998), and positively influence the purchase intention of the consumer (Wang & Yang, 2008). Previous results also show that well established brand personality can generate favorable product evaluation and make a significant impact on consumer purchase intention (Wang & Yang, 2008; Wang et al., 2009). Research has also shown that perceived quality mediates the impact of brand personality on purchase intensions (Tong & Li, 2013).Based on these findings, the following hypotheses were developed to examine the effect of brand personality within the Pakistani clothing market.

H_4: Brand personality positively affects Pakistani consumers' purchase intentions of domestic brands.

H_5: Brand personality positively affects consumers' quality perception of domestic brands.

H_6: Perceived quality mediates the effect of brand personality on purchase intensions.

3.2. Brand Trust

Brand trust denotes the "willingness of the average consumer to rely on the ability of the brand to perform its stated function" (Chaudhuri & Hoibrook, 2001, p. 82). It is linked with the beliefs that a consumer holds that he or she has confidence to rely on the brand to produce its stated function (Agustin & Singh, 2005). To the definition of brand trust,

the perception of 'reliance' is important, indicating that there are two characteristics of brand trust: trustworthiness and expertise (Sung & Kim, 2010). Truth worthiness is the consumers' confidence that the brand will provide quality performance in an honest and sincere manner. Expertise refers to the degree to which brand is considered knowledgeable and skillful, which arises from training or experience in the product or service category. Consumer confidence about brand reliability, competency, consistency, responsibility, fairness, helpfulness and honesty increase brand trust (Chaudhuri & Hoibrook, 2001). Trust can be seen using emotional and rational dimensions (Ernest & Young, 2013). Emotions are linked with security, confidence, interest, liking, admiration and appreciation (Ernest & Young, 2013), while the rational dimension of trust is concerned with creditability which refers to the power of the brand to satisfy consumer needs (Belaid & Behi, 2011).

Trust has been viewed as a cognitive component although it has been studied in a different perspective in marketing (Casaló, Flavián & Guinalíu, 2007). It is considered a key factor contributing to the success of relationship marketing (Morgan & Hunt, 1994), is one of the central elements of strategies relating to brand management (Jafari, 2014), and is used to establish a solid link between brand and consumers (Bouhlel, Mzoughi, Hadiji & Slimane, 2009). In a consumer-brand relationship, trust is a key element (Fournier, 1998) as confirmed by psychologists, sociologists and economists through their studies from management and marketing aspects (Borzooei & Asgari, 2013), and has a positive impact on brand loyalty (Lau & Lee, 1999).

Two brand trust constructs appear to be important (Sung & Kim, 2010). First, honesty, which is the belief that other party will keep their promise and will be sincere. Brands that are considered as honest, pragmatism and sincerity are more trusted by consumers than brands without having such personality traits. Competency is related to consumer beliefs in a brand's expertise, knowledge, and performance to fulfil consumer needs (Coulter & Coulter, 2003). Brands with personality traits of high competency, such as knowledge, hardworking, confidence and reliability are associated positively with brand trust (Sung & Kim, 2010).

Previous studies have demonstrated the relationship of brand personality with brand trust. Consumer trust in the brand can play a crucial role in the purchase decision process as various purchases involve little to no personal contract (Zboja & Voorhees, 2006). Brand personality traits may provide tendency to trust the brand (Lau & Lee, 1999). Past studies have

shown that strong emotions attached to the brand are generally due to a high level of trust in the product (Diamantopoulos, Smith & Grime, 2005). If a consumer believes their personality matches that brand, may have greater trust in the brand (Ha & Janda, 2013). Being branded as honorable, friendly and credible can win the trust of consumers (Bouhlel et al., 2009). Past research has demonstrated that brand personality creates affect levels and emotions along with trust and loyalty (Fournier, 1998). Based on this literature, the following hypotheses were formulated:

H_7: Consumer ethnocentrism positively affects consumers' brand trust in domestic products.

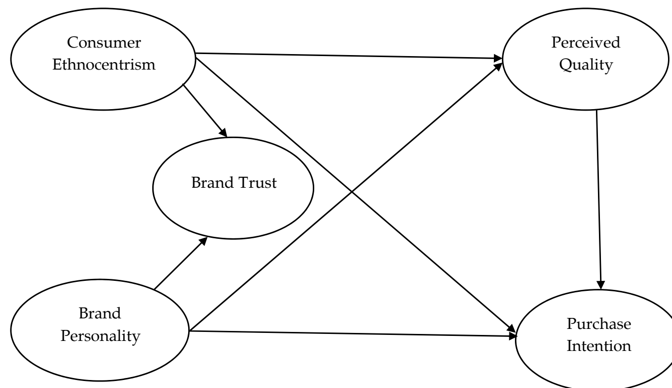
H_8: Brand personality positively affects consumers' brand trust in domestic products.

3.3. Quality perception and purchase intention

Consumers purchase a brand when they have the perception that brand provides quality and features they desire (Kumar, Lee, & Kim, 2009). Consumers recognize disparity and superiority of a brand by intuition of high quality which leads them to choose that brand (Yoo, Donthu, & Lee, 2000). Irrespective of the brand's domestic or foreign origin, product quality positively influences purchase intention (Aaker, 2014). Therefore, the following hypothesis was developed:

H9. Perceived quality positively affects consumers' purchase intentions of domestic brands.

Figure 1: Conceptual Framework



Note: Mediation role of Perceived quality
*Consumer ethnocentrism ---> Perceived Quality ---> Purchase Intention
**Brand Personality ---> Perceived Quality ---> Purchase Intention

4. Methodology

The conceptual framework was drawn to examine the relationship between consumer ethnocentrism, brand personality, brand trust, perceived quality and purchase intentions of Pakistani clothing brands. Key Pakistani clothing brands were selected to accomplish the objectives of this study. For many years, clothing and textiles have played a vital part in the development of Pakistan's economy. In fact, it is one of the country's biggest industrial sectors for exports, investment and employees. According to the Trade Development Authority (TDA) of Pakistan (2013), Pakistan is the 8th largest country for textile exports, its contribution towards GDP is 8.5% and is a source of employment for about 15 million Pakistani people Hussain, (2018). In 2012, its share in total Pakistani exports was 52% (US$12.36 billion) and increased to US$13.06. The products which have contributed to the increase in exports of the textile sector were mainly garments, towels and cotton cloths.

To operationalize variables, we adopted scales from previous studies with slight modification. Researchers used Likert scales to measure all items. Consumer ethnocentrism tendencies were measured by CETSCALE introduced by Shimp & Sharma (1987). To access brand personality, we adopted a 12-items scale of Geuens, Weijters, & Wulf (2009). Brand trust was measured using the 5-items NAME HERE scale (Becerra & Badrinarayanan, 2013; Chaudhuri & Hoibrook, 2001). Perceived quality of clothing brands was measured using eleven-item scale specially designed for apparel industry (Patterson & Tai, 1991). A four-items scale designed by Spears & Singh (2004) was used to measure purchase intention.

The current study relies on the deductive approach as it aims to test the theory. So, quantitative technique for data collection was used and self-administered questionnaires were distributed among respondents aged 18 or above throughout the province of Punjab using convenience sampling technique. For this purpose, 300 questionnaires were distributed, and among them 270 were completed, resulting in a response rate of 90%. The sample was composed of 52.2% males and 47.8% females.

5. Data Analysis and Results

5.1. Internal Reliability

Cronbach's alpha coefficients were calculated to measure internal reliability. The results of Cronbach's alpha demonstrated that all scales

used in this study were highly reliable. The Cronbach's alpha coefficients of the constructs of consumer ethnocentrism, brand personality, brand trust, perceived quality and purchase intention were .81, .74, .83, .82, and .64 respectively. The results are shown in table 1.

Table 1: Cronbach's Alpha

Variables	Cronbach's Alpha
Consumer Ethnocentrism	0.817
Brand Personality	0.746
Brand Trust	0.83
Perceived Quality	0.827
Purchase intention	0.649

5.2. *Convergent Validity*

Before testing the hypotheses, a measurement model was developed using LISREL 8.80 to confirm the previously validated constructs in local settings, as scales were adopted and tested across different countries. Result of this model suggest no exploratory analysis was necessary. Rather a confirmatory factory analysis was considered enough to achieve the objective. The data of the variables used by the current study violated the assumption of normality so, robust maximum likelihood was employed as it is highly effective even in non-normal data (Curran et al., 1996). The values of the goodness of fit indices $\chi 2/df= 2.01$, NNFI or TLI=.92, CFI=.93, AGFI=0.90 and RMSEA=.06 which indicates that the measurement model is excellent. The results of the confirmatory factor analysis are given in Table 2. Convergent validity was satisfactory as t values of all factor loading are statically significant at 0.001 and composite reliability is greater than the threshold value of .70 (Fornell & Larcker, 1981). Although average variance extracted of consumer ethnocentrism is below what we would hope to see, according to Fornell and Larcker (1981) and Malhotra and Dash (2011), composite reliability alone provides a researcher the ability to assess the convergent validity.

5.3. *Discriminant Validity*

Discriminant validity was adequate, as squared correlation among each pair of variables was less than average variance extracted (Fornell & Larcker, 1981).

Table 2 standardized loadings, average variance extracted and composite reliability

Factor	Standardized loadings	AVE	Composite Reliability
Consumer Ethnocentrism		0.33	0.87
ETHNO1	0.35*		
ETHNO2	0.12**		
ETHNO3	0.51		
ETHNO4	0.57		
ETHNO5	0.19**		
ETHNO6	0.52		
ETHNO7	0.71		
ETHNO8	0.61		
ETHNO9	0.62		
ETHNO10	0.55		
ETHNO11	0.57		
ETHNO12	0.64		
ETHNO13	0.53		
ETHNO14	0.51		
ETHNO15	0.61		
ETHNO16	0.52		
ETHNO17	0.57		
Brand Personality		0.59	0.92
BrdPer1	0.60*		
BrdPer2	0.37**		
BrdPer3	0.65		
BrdPer4	0.39**		
BrdPer5	0.52		
BrdPer6	0.54		
BrdPer7	0.25**		
BrdPer8	0.58		
BrdPer9	0.55		
BrdPer10	0.58		
BrdPer11	0.80		
BrdPer12	0.50		
Brand Trust		0.55	0.83
BT1	0.81*		
BT2	0.80		
BT3	0.67		
BT4	0.69		

Factor	Standardized loadings	AVE	Composite Reliability
Perceived Quality		0.48	0.87
PQua1	0.70*		
PQua2	0.72		
PQua3	0.60		
PQua4	0.34**		
PQua5	0.58		
PQua6	0.87		
PQua7	0.71		
PQua8	0.73		
PQua9	0.70		
PQua10	0.84		
Purchase Intention		0.50	0.74
PI1	0.80*		
PI2	0.76		
PI3	0.54		
PI4	0.43**		

*Items are fixed to set the scale
** Items are deleted from model due to their poor factor loading

Table 3 Correlation Matrix

	ETH	BP	BT	PQ	PI
ETH	1				
BP	.202	1			
BT	.460	.364	1		
PQ	.255	.506	.442	1	
PI	.367	.373	.493	.519	1

5.4. Structural Model

To test the hypotheses, a structural model was estimated using LISREL 8.80. The goodness of fit indices denotes that model fits the data very well. Values are $\chi 2/df= 2$, NNFI or TLI=.92, CFI=.92, AGFI = 0.90 and RMSEA=.062.

Figure 2: Structural Model produced by LISREL

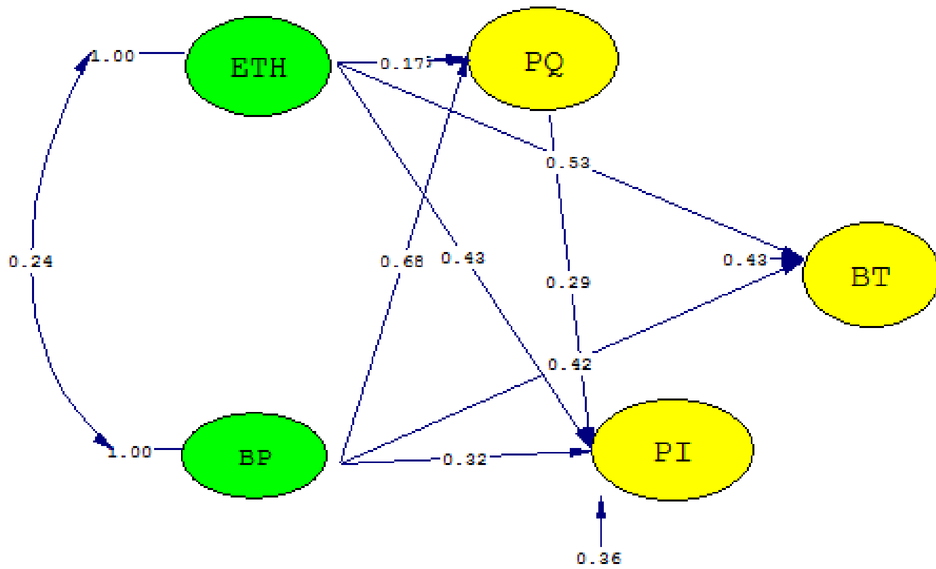


Table 4 Hypothesis Results

Hypothesis				Estimate	C.R.	P	Results
H1	PI	<---	ETH	.43	5.96	***	Supported
H2	PQ	<---	ETH	.17	2.33	**	Supported
H4	PI	<---	BP	.32	2.18	**	Supported
H5	PQ	<---	BP	.68	6.89	***	Supported
H7	BT	<---	ETH	.53	8.00	.***	Supported
H8	BT	<---	BP	.42	5.52	***	Supported
H9	PI	<---	PQ	.29	2.18	**	Supported

***Significant at 0.01
**Significant at 0.05

H_1 was supported (β = .43, t = 5.96, p< 0.01) which means that consumer ethnocentrism was positively associated with purchase intention. H_2 is also confirmed (β = .17, t = 2.33, p< 0.05) which indicates that as the level of consumer ethnocentrism increases, quality as perceived by the consumers also increases. H_4 is statically significant (β = .32, t = 2.18, p< 0.05) which shows brand personality positively affects purchase intention. H_5 (β = .32, t = 2.18, p< 0.01) proves that brand personality positively affects perceived quality. H_7 was supported (β = .53, t = 8.00, p< 0.01) confirming that a positive link existed between

consumer ethnocentrism and brand trust. H_8 and H_9 were also statistically significant (see Table 4).

5.5. *Mediating Effects*

Table 5 reveals the mediating role of perceived quality in the relationship between brand personality and purchase intentions, through bootstrapping, as this technique is most popular and effective in testing mediation through indirect effects (Bollen & Stine, 1990; Shrout & Bolger, 2002). The indirect effect of consumer ethnocentrism on purchase intention is significant (β = .12, p< 0.01) showing the existence of mediation. The direct effect of brand personality on purchase intention in the presence of perceived quality was also significant (β = 0.43, p< 0.01). Thus, perceived quality partially mediates the relationship between brand personality and purchase intension. H_6 was also supported.

The indirect effect of consumer ethnocentrism and purchase intentions was significant (β = .19, p< 0.01). Analysis of direct effects with mediator confirms the notion that perceived quality also partially mediates the effect of consumer ethnocentrism on purchase intensions.

Table 5: Mediating effects of perceived quality

Hypothesis	Relationships	Direct effect	Indirect effect	Result
H3	ETHPQ PI	0.43 (p < 0.05)	0.12 (p < 0.01)	Partial Mediation
H6	BP PQ PI	0.32 (p < 0.01)	0.19 (p < 0.01)	Partial Mediation

6. Discussion and Conclusion

This research intends to observe empirically the influence of consumer ethnocentrism and brand personality on purchase intention, quality perception and brand trust towards domestic products in the Pakistani clothing market. The findings of this study will assist domestic marketers to understand the role of consumer ethnocentrism propensity and brand personality in purchasing domestic products, quality perception and building trust among young customers.

The findings of this study confirmed that Pakistani consumers are highly ethnocentric and this ethnocentrism positively affects purchase intentions of Pakistani customers. Özsomer (2012) reported similar results in his empirical findings that residents of the country prefer to purchase products produced locally. These findings are a blessing for domestic

manufacturers to capture the domestic market by excluding foreign brands from the market. Like other customers around the world, Pakistani customers seek certain benefits from a brand they purchase, therefore, these benefits need to be focused on by domestic marketers. This study also revealed that the ethnocentric consumer perceives local brands positively regarding quality, but to compete with foreign brands domestic marketers should focus on increasing and maintaining the quality of domestic brands. The conclusion of this study is in line with the past studies conducted on the subject (Rahmawati, 2016; Tong & Li, 2013). Salman and Naeem (2015) claimed that high ethnocentric behavior in consumers creates a positive attitude towards local brand quality. It was also found that the ethnocentric consumer has strong trust in domestic brands. This is also good news for domestic manufacturers to emphasize the "made in Pakistan" viewpoint by encouraging customers to buy local brands and products, confirming the findings of Tong and Li (2013).

The research demonstrates that brand image has a greater effect on purchase intention, perceived quality and brand trust than consumer ethnocentrism. Results are positive for both international and domestic marketers, and they should know that building strong brand personality is vital in the Pakistani consumer decision making process. It can even overcome the ethnocentric tendencies of Pakistani consumers. Foreign marketers can address ethnocentric tendencies by building a strong image of their brands in the local context (Tong & Li, 2013; Wang et al., 2009).

The results of this study also suggest that perceived quality strongly influences purchase intentions in the Pakistani clothing market which indicates that alone, brand personality and consumer ethnocentrism does not guarantee sales of local brands. Local manufacturers should, therefore, compete using high quality, as this is good for customer retention. This is another area that can give a competitive edge to foreign brands over local brands (Haque et al., 2015). Current research findings uncovered the fact that ethnocentric consumers first evaluate the quality of the product and then they tend to buy Pakistani products. Brand personality also affect purchase intensions via perceived quality, thus, highlighting the importance of producing quality products. Mere ethnocentric behavior and brand personality do not alone guarantee product purchase. Companies should strive to increase the quality of their products.

7. Limitations and Future Research

This study is conducted in the clothing market of Pakistan by focusing small sample. Some past studies elaborated that ethnocentric consumer behavior is a product specific trait and subject to change from one product to another (Balabanis &Diamantopoulos, 2004; Han & Terpstra, 1988). Another limitation of this research is that it ignores the effect of country of origin, future research should replicate our model by employing country of origin using other products. Consumer age may also affect their attitudes and perception (Wang & Yang, 2008). Further, other factors such as consumers' involvement, engagement and product price can play a major part in evaluating the perceived quality and purchase intentions of the consumers. Finally, in-depth interviews and focus group should be conducted to fully understand the behavior of consumers regarding ethnocentrism and its influence on the purchase of domestic and foreign products.

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Appendix

SURVEY QUESTIONNAIRE

Dear Respondent,

This survey requires your feedback that will assist me in my research work and will help me to examine the impact of Consumer ethnocentrism and brand personality on purchase intentions. For this purpose, I choose Pakistani clothing brands such as Gul Ahmad, Al Karam, Chen One, Breeze, Bonanza, Karma, Nishat, Maria B, Stoneage, Outfitters, JunaidJamshed, House of Ittehad, Five Stars, Firdous and uniworth, which are very famous especially among youth of Pakistan. In this connection, it is requested to your kind-self to fill the survey questionnaire as enclosed herewith because your opinion is most important. The feedback shall be kept **confidential** and **anonymous** and to be used only for academic purpose.

Part 1:

a.	Gender:	☐ Male	☐ Female
b.	Marital status:	☐ Single	☐ Married
c.	Education:	☐ Matric or Under Matric	☐ Intermediate or Graduate
		☐ Masters or Above	☐ Diploma or Professional
d.	What is your prefer clothing brand:		
		☐ Gul Ahmad	☐ Al-Karam
		☐ Bonanza	☐ Chen One
		☐ Breeze	☐ Junaid Jamshed
		☐ Karma	☐ Nishat
		☐ Stoneage	☐ Five Stars
		☐ Outfitters	☐ House of ittehad
		☐ Royal Tag	☐ Uniworth
		☐ Others____	

Please read the statements and show the level of agreement keeping in. You may encircle or mark (ü) at appropriate choice against each statement according to the given coding.
5 = Strongly Agree (SA) 4 = Agree (A) 3 = Somewhat (S) 2 = Disagree (D)
1 = Strongly Disagree (SD)

Consumer Ethnocentrism						
ETH1	Pakistan people should always buy Pakistani-made products instead of imports	5	4	3	2	1
ETH2	Only those products that are unavailable in the Pakistan should be imported	5	4	3	2	1
ETH3	Buy Pakistani made products. Keep Pakistan working	5	4	3	2	1
ETH4	Pakistani products first, last and foremost	5	4	3	2	1
ETH5	Purchasing foreign-made products is un-Pakistani	5	4	3	2	1
ETH6	It is not right to purchase foreign products because it puts Pakistanis out of jobs	5	4	3	2	1
ETH7	A real Pakistani should always buy Pakistani-made products	5	4	3	2	1
ETH8	We should purchase products manufactured in Pakistan instead of letting other countries get rich of us	5	4	3	2	1
ETH9	It is always best to purchase Pakistani products	5	4	3	2	1
ETH10	There should bevery little trading or purchasing of goods from other countries unless outof necessity	5	4	3	2	1
ETH11	Pakistanis should not buy foreign products, because it hurts Pakistani business and causes unemployment	5	4	3	2	1
ETH12	Curbs should be put on all imports	5	4	3	2	1
ETH13	Itmay cost me in the long-run but I prefer tosupport Pakistani product	5	4	3	2	1
ETH114	Foreigners should not be allowed to put theirproducts on our market	5	4	3	2	1
ETH115	Foreign products should be taxed heavily toreduce their entry into the country	5	4	3	2	1
ETH116	We should buy from foreign countries onlythose products that we cannot obtain withinour own country	5	4	3	2	1
ETH117	Pakistani consumers who purchase products made in other countries are responsible for putting their fellow Pakistanis out of work	5	4	3	2	1
Brand Trust						
BT1	I trust the brand	5	4	3	2	1
BT2	I rely on the brand	5	4	3	2	1
BT3	The brand is trustworthy	5	4	3	2	1
BT4	The brand is safe	5	4	3	2	1
BT5	The brand is honest	5	4	3	2	1
Perceived Quality						
PQ1	The Style of Pakistani cloths is very fashionable	5	4	3	2	1
PQ2	Colours are generally very fashionable	5	4	3	2	1
PQ3	Fabric quality is excellent	5	4	3	2	1
PQ4	Overall workmanship is excellent	5	4	3	2	1
PQ5	Prices are relatively inexpensive	5	4	3	2	1
PQ6	Clothing is usually excellent fit	5	4	3	2	1
PQ7	Clothing retains it colours	5	4	3	2	1
PQ8	Clothing is very durable	5	4	3	2	1
PQ9	Clothing is generally of high quality	5	4	3	2	1
PQ10	Excellent value for money	5	4	3	2	1
PQ11	Generally manufactures high quality brands	5	4	3	2	1

Purchase Intention						
PI1	I would buy this brand rather than any other brands available	5	4	3	2	1
PI2	I intend to purchase this brand in the future	5	4	3	2	1
PI3	I have very low purchase interest in this brand	5	4	3	2	1
PI4	I am willing to recommend that others buy this brand	5	4	3	2	1
Brand Personality						
Rate the brand according to the following personality that a brand possess						
BP1	Down to earth	5	4	3	2	1
BP2	Stable	5	4	3	2	1
BP3	Responsible	5	4	3	2	1
BP4	Active	5	4	3	2	1
BP5	Dynamic	5	4	3	2	1
BP6	Innovative	5	4	3	2	1
BP7	Aggressive	5	4	3	2	1
BP8	Bold	5	4	3	2	1
BP9	Ordinary	5	4	3	2	1
BP10	Simple	5	4	3	2	1
BP11	Romantic	5	4	3	2	1
BP12	Sentimental	5	4	3	2	1

The Lahore Journal of Business
7 : 1 (Autumn 2018): pp. 113–136

Relationship among Capital Regulations, Risk and Efficiency: Comparison of Islamic with Conventional Banks in Pakistan

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Abstract

This paper examines and compares the relationships between capital regulations, risk and efficiency of Islamic banks with conventional banks in Pakistan from 2003 to 2015. By employing seemingly unrelated regression (SUR) this study finds that capital regulations have no significant effect on the risks taken by Pakistani Islamic banks. Capital regulations have increased the operational efficiency, while it has neither decreased nor increased the cost efficiency of the banks. The results of this study find no major difference in the capital regulations, risk and efficiency relationships between Islamic and conventional banks. The findings of this study also highlight the significant difference in the effect of capital regulations on the bank risks before and after the Global Financial Crisis of 2008, while there is no difference in the impact of capital regulations on bank efficiency before and after the 2008 crisis.

Key words: Capital regulations, bank efficiency, bank risk, Islamic Banking, Conventional banks, Global Financial Crisis.

JEL Classification: C39, G18, G21, E58

1. Introduction

1.1. Background of the Study

The failure of banks during last few decades underlines the major risks associated with banking (Vianney, 2013), and uncovers the requirement for sound legal framework to minimize future risks connected with banking. The response of governments and bank regulators to these bankruptcies came in the form of strict regulations for banks. However, according to Barth, Caprio and Levine (2006) the impact of regulation and monitoring on the bank is not clear. They explained two conflicting views.

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The first, public interest view, states that for the sake of safety of the common man government plays its role by regulating banks to encourage efficient banking practices to alleviate market malfunctions. The main rational of this theory is to protect the common man from malpractices and misconduct in the market place e.g. imperfect competition, monopolies and unbalanced market operations. The hidden logic of this public interest theory is that regulation is necessary to make businesses or organizations work in the interest of the common man. Baldwin, Cave and Lodge (2012) describe the regulations under public interest view as the helping hand of the common man against self-interest groups of individuals or firms. To achieve its aim of protecting the public, regulators try to provide all the information needed for decision making. By contrast, the private interest view purports that rules are enforced to accommodate selected personnel, instead of the public. Stigler (1971) states that regulated industries pressurize the regulator to change laws to protect their interests. Though public interest view stresses the role of government to correct market failures, the private interest view cites the aspiration of politicians and government regulators to increase their own benefit with market failures. This theory also states that due to its discretionary power, regulators can shape banking guidelines, where private interest of groups will dictate the public interest. The Basel Committee was formed by the G-10 (ten largest economies in the world) to analyze the failure of Herstatt Bank and it came up with three recommendations known as Basel I, II and III. Although Basel accords are implemented by almost all the countries of the world, there is no consensus on the effectiveness of these accords.

The unparalleled international financial turmoil after the Global Financial Crisis raised serious questions on the working of conventional banking. Due to disagreement on the effectiveness of the Basel regulations, people are raising questions about the ability of conventional banking to address the dangers it produced. According to Miah and Sharmeen (2015) both practitioners and academicians are questioning the ability of the conventional banking mechanism to overcome the risks caused by conventional banking. They are of the view that the scholars are now focusing on Islamic banking as a competitor rather that an alternative to conventional banking. According to Bitar (2014), the Profit and Loss Sharing (PLS) feature of Islamic banking plays a pivotal factor in its popularity. Since these banks share their profit and loss with their customers, they are extra vigilant in their investments, unlike conventional banks, due to fear of loss of clients in circumstances of high losses.

1.2. History of Banking and its Regulation in Pakistan

The State Bank of Pakistan (SBP) has taken different initiatives for the promotion of Islamic banking since 1947. However, for the introduction of Islamic banking, the Pakistani government took a number of steps between 1979 and 1992. During this time, the concept of interest free Islamic banking was introduced. Issuance of the Zakat and Ushr Ordinance, establishment of Mudarbaha companies and launching of Participatory Term Certificates (PTC) also occurred during 1980. Moreover, in 1981 state-owned banks were bound to provide clients interest-free services and facilities. The year 1984 saw an amendment in the Banking and Financial Services Ordinance by incorporating non-interest based systems. However, according to Awan (2009), the growth of Islamic banking in Pakistan has accelerated since 2002. The Supreme Court of Pakistan instructed the government of Pakistan to bring its financial system in line with Shariah by making necessary changes in current financial structure. To conform to the decision of the Supreme Court, in December 2001 the State Bank of Pakistan took several steps. It issued comprehensive criteria to establish proper commercial private Islamic banks. In January 2002, the State Bank of Pakistan issued the complete Islamic Bank license to Meezan Bank Limited and it became the pioneer Islamic commercial bank in Pakistan. Different task forces were set up to eradicated interest from Government financial transactions and to change the legal framework to Islamic principles. In 2003, the State Bank provided comprehensive guidelines for establishing affiliates and separate Islamic banking offices by conventional banks. Over the years, Islamic banking in Pakistan has shown reasonable growth. According to Ayub and Javeed (2016), the Pakistani Islamic banking sector has seen a growth rate of 11 percent per annum in its assets, while that of worldwide Islamic financial services witnessed a 7.3 percent growth in 2015. The time period of this growth of Islamic banking in 2002 coincides with the consolidation phase of financial sector reforms i.e. 2002 to 2004. The State Bank of Pakistan started the consolidation process of the banking industry by increasing the limit of regulatory capital for banks (Khan & Khan, 2007). Banks were encouraged to make independent companies to work as mutual funds and asset management companies. Moreover, banks were instructed to increase their loaning to mediocre and poorer segments of society. Special focus was given to Automation and Prudential Regulations. Banking audit, monitoring and corporate governance is also given due weightage and is taken great care of.

Several contributions are made by this study to the empirical literature. Examination of the relationships between capital regulations, efficiency and risk by using multiple proxies in the Pakistani banking industry is the first contribution of this research. Comparison of the regulatory capital, risk and efficiency nexus with respect to commercial banks of Pakistan (Islamic with conventional) marks the second contribution of this study. Investigation of this relationship with respect to Islamic banks in the pre and post Global Financial Crisis period represents the third contribution of this study. According to de Guevara, Maudos & Pérez (2007), there are very few studies examining the relationship of capital regulation with efficiency and risk in an Asian context. There is a gap in the previous studies that investigated this relationship in the Pakistani banking sector generally and Pakistani Islamic banks specifically. The results of this research will help the State bank of Pakistan assess the effectiveness of the Basel capital regulations on the banking sector in general and on Islamic banks in particular. It will help the State bank of Pakistan in formulating and enforcing suitable policies and strategies regarding risk and efficiency with respect to both conventional and Islamic banks.

2. Literature Review

2.1. Capital Regulations Effect on Bank Risk

In theory there are two schools of thought regarding the effect of capital regulations on bank risk. One school of thought supports the positive effect of capital and risk (Kim & Santomero 1988). As banks take more risk, they increase their capital significantly to mitigate the effect of bankruptcy due to the pressure of the state bank. However, theory also advocates the inverse association between capital and risk. The presence of the flat deposit insurance scheme can be cited as a major reason for the negative link between the two (Furlong & Keeley, 1989). They argued that the presence of deposit insurance schemes allows banks to incur more risks without increasing their bank capital.

Risk and capital level changes had a positive impact on each other in US bank holding companies (Shrieves & Dahl 1992). They also established that risk exposures and capital levels were simultaneously determined. Supervisory pressure did not influence risk, while it positively influenced capital (Rime, 2001). Rime (2001) observed that between 1989 and 1995 Swiss banks incre ased their capital ratios to avoid the penalties for not maintaining required capital regulations. Hassan and Hussain

(2006) concluded that a country's environmental, legal and cultural features should be considered while designing capital regulation policies. By looking at the influence of regulations on bank behavior Hassan and Hussain (2006) noted that in countries with less developed financial systems, capital ratios and portfolio risk were inversely related. Awdeh, El-Moussawi and Machrouh (2011) concluded a positive impact of capital regulations on risk. They also observed a positive correlation between bank profitability and increase in capital, thus seconding the use of retained earnings to increase capital rather than issue new equity. Tan and Floros (2013) looked at link between risk and capital on 101 commercial banks of China by applying three staged least estimation. Their findings supported a negative relationship between risk and capital. Alam (2013) found a positive influence of capital regulation on technical efficiency, while it has an inverse relationship with Islamic banks risks. A positive association between capital and risk for Islamic banks was found by Miah and Sharmeen (2015), while with regards to conventional banks in their study, there was no significant relationship between capital and risk. In their study on commercial banks of Pakistan from 2005 to 2012, Ashraf, Arshad, and Hu (2016) favored the notion of forcing banks to higher capital requirements as it forces them to reduce risk. They cited lack of regulatory arbitrage opportunities for reducing the asset portfolio risk. Bashir and Hassan (2017) differentiated the effect of Basel I and II capital regulations on the risk of Pakistani commercial banks from 1997 to 2015. They were of the view that Basel II capital regulations were more effective than Basel I in reducing risks of banks.

2.2. Capital Regulations Effect on Efficiency

There is disagreement about the influence of capital regulations on bank efficiency. Those who believe there to be a negative relationship are of the view that increased efficiency is a signal of low bankruptcy (Repullo & Suarez, 2008). This means banks can retain less capital as it has little chance of bankruptcy due to high efficiency. Those advocating a positive relationship are of the view that high efficiency allows banks extra income to maintain high capital ratios to overcome the possibility of bankruptcy (Pasiouras, Tanna, & Zopounidis, 2009).

Barth, Caprio and Levine (2008) challenged the notion of forcing banks into regulations for the sake of improvement in efficiency as they failed to find any evidence of it in their cross-country study involving banks in 142 countries. Pasiouras et al. (2009) reported mixed results in their sample. Strict capital regulations decreased the profit efficiency while

it increased the cost efficiency. Delis, Molyneux and Pasiouras (2011) noted that overall capital requirements and supervision by the central bank had no effect on the efficiency of the banks in their sample. The only exception to this is the period after the Global Financial Crisis. Chortareas, Girardone and Ventouri (2012) were of the view that regulations reduce the efficiency of financial institution. They reported that regulation plays a positive role in the efficiency of the transparent and democratically strong countries. Barth et al. (2013) noted that strict capital regulations played a minor positive role in enhancing the efficiency of the banks functioning in seventy-two countries during the period from 1999 to 2007. Bouheni (2013) concluded that the effect of regulatory supervision on the performance of the banks varies according to country and institutional environment. He arrived at his findings by exploring the impact of banking supervision on the performance of the 10 largest banks of France, Germany, UK and Greece during the period of 2005 to 2011. Pessarossi and Weill (2015) observed that the cost efficiency of Chinese banks increased after the implementation of capital regulations. They found a positive impact of capital ratio on cost efficiency. They were of the view that the increase in cost efficiency was dependent on the ownership type of bank. Triki, Kouki, Dhaou and Calice (2017) looked at the effect of different regulatory activities on 46 African countries banks efficiency. They reported mixed findings. Some activities affected the efficiency while others did not. They were of the view compliance to strict capital requirements should not be used as punishing tool against small bank. They concluded that bank should follow the regulations according to their size and risk level.

2.3. *Association of Risk and Efficiency*

Theory offers different justifications about the risk and efficiency nexus. To boost their profits, banks can choose to lower their costs in the short term. By incurring small costs, non-performing loans are unaltered in short term. This positive relationship of risk and efficiency is called the skimping hypothesis. Those in support of a negative relationship argue that banks having little efficiency due to poor management, or external events beyond the control of management will incur more cost. This will decrease their efficiency, and the low efficiency banks need to incur high risks to reimburse the effects of inefficiency. This negative relationship is called bad management or the bad luck hypothesis (Berger & De Young, 1997).

Altunbas, Liu, Molyneux, and Seth (2000) explored the effect of risk on cost efficiency and in their sample of Japanese commercial banks during the period of 1993 to 1996. They reported that risk has a negative

relationship with efficiency that efficiency allows cushion to evaluate risk. They reported that risk has a negative relationship with efficiency in their sample of Japanese commercial banks during the period of 1993 to 1996. Das and Ghosh (2004) were of the view that efficiency had a positive effect on the credit risk in their sample of Indian banks. He argued that efficiency allows flexibility to take on more risk. Their findings supported the notion that capital, efficiency and risk are jointly determined and should not be treated separately. Podpiera and Weill (2008) observed a negative association between risk and efficiency in 43 Czech banks from 1994 to 2005. Sun and Chang (2011) reported a negative relationship between credit and operational risk with cost efficiency. In their study of banks in eight emerging Asian countries from 1998 to 2008, the impact of market risk on efficiency was positive. Nguyen and Nghiem (2015) reported that there was considerable difference in the risk and efficiency relationship of public and private banks. Sarmiento and Galán (2017) noted that size was an important factor in the risk and efficiency relationship of 31 Columbian commercial banks for the period of 2002 to 2012. They observed that large and foreign banks take more risk.

2.4. Hypotheses

Based on above literature review, following hypotheses have been developed for testing in this study.

H1A: Bank risk decreases with bank capital regulations.

H2A: Bank efficiency decreases with capital regulations.

H3A: Bank risk decreases with bank efficiency.

3. Methodology

3.1. Data and Sample

All listed Islamic and conventional banks from 2003 to 2015 in Pakistan constitute the sample of this research. The list of all pure Islamic banks was obtained from the Islamic Bank Department of the State Bank of Pakistan. According to the Islamic Banking Bulletin (2015), there were five complete Islamic banks in 2015, majority were conventional banks with Islamic windows (hybrid). Banks with complete data in all variables for the particular year are included in the study. A similar selection procedure is

used in the case of conventional banks. Financial statements of particular banks are used as the data source.

3.2. Measurement of Variables

3.2.1. Bank Risk

The proxy for bank risk used in this study is the loans loss provision to net interest revenue ratio, as per Reda, Rjoub and Alrub (2016). It is a measure of quality of the loans of a bank. A low value of this ratio indicates that provision for losses incurred with respect to interest revenue (net) is low and hence risk is low.

3.2.2. Bank Efficiency

Bank efficiency is measured by net interest margin (NIM) as per Dumičić and Ridzak (2013). This proxy of efficiency is calculated by dividing the net interest income of a bank to its average earning assets.

3.2.3. Bank Capital

For bank capital regulations, the total risk weighted assets of a bank divided by the sum of tier 1 and tier 2 capital (TCTR) is used as per Jacques and Nigro (1997).

3.2.4. Size

Another control variable used in this study is size. The natural log of total assets for a bank is used to compute this variable. Miah and *Sharmeen (2015) and Alam (2013) also propose this proxy.*

3.2.5. Return on Average Asset

In order to measure the profitability of bank, return on average assets (ROAA) is employed. It is calculated by dividing the net income of a bank to its average total assets as proposed by Popovici (2014) who has employed this proxy in his research.

3.2.6. Net Loans to Total Assets

The liquidity of the banks is captured by using net loans to total asset (NLTA) as used by Alam (2013). It is calculated by dividing the net loans made by the bank by its total asset.

3.3. Empirical Model and Estimation Techniques

The existing literature suggests the presence of endogenity among the bank capital, bank risk and bank efficiency because these three variables are determined simultaneously. Previous studies have used different methodologies e.g. instrumental variable (IV), generalized methods of moments (GMM) and robust standard error estimators for panel models (PCSE).

3.3.1. Seemingly Unrelated Regression (SUR)

Due to the small number of observations in the case of Islamic banks, other techniques such as GMM cannot be used. Seemingly unrelated regression (SUR) also becomes a suitable estimation technique due to non-availability of suitable instrumental variable (IV) to be used in 2sls and 3sls. The link between the three variables risk, capital and efficiency is estimated by specifying a scheme of equations and making use of Zellner's (1962) methodology. By doing so, this study has followed the methodology used by Altunbas, Carbo, Gardener and Molyneux (2007), Miah and Sharmeen (2015). This estimation method is not extensively applied in Pakistani banking regulation research.

$$LLPNIR_{it} = \alpha_0 + \beta_1 TCTR_{it} + \beta_2 NIM_{it} + \beta_3 NLTA_{it} + \beta_4 SIZE_{it} + \beta_5 ROAA + \varepsilon i \quad (3.1)$$

$$NIM_{it} = \alpha_0 + \beta_1 TCTR_{it} + \beta_2 LLPNIR_{it} + \beta_3 NLTA_{it} + \beta_4 SIZE_{it} + \beta_5 ROAA + \varepsilon i \quad (3.2)$$

$$TCTR_{it} = \alpha_0 + \beta_1 LLPNIR_{it} + \beta_2 NIM_{it} + \beta_3 NLTA_{it} + \beta_4 SIZE_{it} + \beta_5 ROAA_{it} + \varepsilon i \quad (3.3)$$

4. Empirical Results

4.1. Descriptive Statistics

Descriptive statistics of all the variables studied are reported in Table 1. The upper and lower parts of Table 1 display the descriptive statistics for Islamic and conventional banks respectively. Results show that estimated provision for losses expressed as a percentage of net interest revenue of the Islamic banks in this study is 9.83 percent. The minimum and maximum value of the measure of asset quality for Islamic banks stands at -22.36 percent and 80.97 percent respectively. The average value of NIM is 4.89 percent and its value falls between a minimum of 1.60 percent and maximum of 8.64 percent. Table 1 also shows that the average TCTR of the Islamic banks in the sample is 22.24 percent, which far exceeds the regulatory requirements of 8.00 & 10.5 percent. The value of this ratio

ranges from minimum of 9.58 percent to maximum of 62.01 percent. The average value of NLTA stands at 47.36 percent; while it's high and low values fluctuate from 26.60 per cent to 66.81 percent approximately. The average ROAA of banks is weak at 0.18 percent and some banks suffer losses as depicted by the minimum value of -12.29 percent and maximum ROAA stands at 4.94 percent roughly. Similarly, another bank specific variable size is reported in table 1 as well.

The latter part of Table 1 displays the descriptive statistics for conventional banks. Here Loans Loss Provision to Net Interest Revenue (LLPNIR) has seen a rise in the average value to 23.87 percent. Its highest and lowest values are also showing an upward trend. Average value of Net Interest Margin has decreased to 3.78 percent from 4.89 percent of Islamic banks. Similarly, average value Total Capital to Total Risk Weighted Assets has also decreased to 15.23 percent, though it is still considerably above regulatory requirement. The average value of NLTA is showing a small decrease in conventional banks at 45.73 percent approximately. The size and ROAA of conventional banks are showing an upward trend from their Islamic counterparts.

Table 1: Descriptive Statistics

			Islamic Banks			
	LLPNIR	**NIM**	**TCTR**	**NLTA**	**SIZE**	**ROAA**
Mean	9.83	4.89	22.24	47.36	10.55	0.18
Std. Dev	18.52	1.70	13.60	11.38	1.14	2.37
Minimum	-22.36	1.60	9.58	26.60	8.30	-12.29
Maximum	80.97	8.64	62.01	66.81	13.18	4.94
			Conventional Banks			
Mean	23.87	3.78	15.23	45.73	11.57	0.56
Std. Dev	95.86	1.87	9.38	11.29	1.43	1.95
Minimum	-395.63	-1.45	0.08	10.05	7.85	-9.22
Maximum	774.77	9.30	65.43	70.94	14.61	5.11

*Values rounded off to two decimal places

4.2. Impact of Capital Regulation on Bank Risk

Table 2 explains the impact of capital regulation on the risk of the Islamic banks. According to the findings of this study, the coefficient of bank regulatory capital has a negative impact on the credit risks of the Islamic banks, but the relationship does not reach significance. The results of this

study show that capital regulations have no effect on the risk taking of Islamic banks. Here findings of the study reject H1A. As far as the effect of bank efficiency on the risk-taking behavior of banks; here NIM has a negative effect on the risks of the Islamic banks. So, banks with high operating efficiency see a decrease in the risk of the Islamic banks, as a high value of NIM is a sign of greater efficiency. These results support H3A and support the bad management hypothesis. This hypothesis states that the efficiency of a bank is reduced with management incompetency. Banks with less efficiency due to poor management will become involved in riskier activities to reimburse the effect of their inefficiency. Here results of this study follow those of Nguyen and Nghiem (2015). However, the NLTA ratio has a significant and negative effect on the bank risk. This shows that as banks' liquidity increases, its risks decrease and vice versa, since a high NLTA ratio is a sign of low liquidity. One possible argument put forward for this is due to less liquidity, the funding cost of banks may be increased which in turn increased the risks of the bank. The impact of liquidity ratio may be negative. These findings are consistent with the findings of Tan and Floros (2013). Size and ROAA do not affect the risk of the banks in this study.

Table 2: SUR Regression of Risk Equation with LLPNIR as dependent variable

Variable	Coefficient	SE
TCTR	-0.3379	0.3588
NIM	-4.4342***	1.6004
NLTA	-0.5233*	0.2949
SIZE	-4.3516	3.5755
ROAA	-2.1051	1.3096
No. of observations	45	
Parameter	5	
RMSE	17.099	
R Square	0.1281	
Chi Sq	15.53*	

***, **, * Significant at the 1%, 5%, and 10% levels

To make results generalizable, the impact of capital regulations on another proxy of risk, non-performing loans to gross loans (NPLGL) is studied and results are reported in Table 3. Results show that capital regulations do not have a significant effect on the risks of the Islamic banks, indicating that H1A should be rejected. NIM has a negative effect on the risks of Islamic banks thus accepting H3A hypothesis. Liquidity negatively

affects the risk considered by the banks because the NLTA ratio has a negative coefficient. Size has positive and significant effect on the banks in our sample. The results show that the big banks take more risk than their small counterparts. One possible explanation might be that size allows flexibility to overcome the possibility of defaults, so big banks indulge in high risk activities. The findings of Deelchand and Padgett (2009) are supported by the results of this study. As well as the impact of profitability on bank risk is concerned, profitability negatively impacts the risks taken by banks. In other words, highly profitable banks in this study take less risk than the ones which are less profitable. This can be explained by the argument that high profitability is a symbol of sound monitoring and firm procedures, so the banks involve themselves in lower risk activities. Here results are supported by the findings of Tan (2013).

Table 3: SUR Regression of Risk Equation with NPLGL as dependent variable

Variable	Coefficient	SE
TCTR	0.1354	0.0959
NIM	-1.4580***	0.4156
NLTA	-0.1069	0.0685
SIZE	2.0122**	0.8960
ROAA	-1.6374***	0.5652
No. of observations	45	
Parameter	5	
RMSE	7.0421	
R Square	0.7259	
Chi Sq	135.16***	

***, **, * Significant at the 1%, 5%, and 10% levels

This research also estimates the impact of capital regulation on the risks of conventional banks. Table 4 shows the results of capital regulations and other variables affecting the risks of the conventional banks. It shows no significant relationship between capital regulations and either proxy of bank risk. This is consistent with its absence of impact on Islamic banks. It can be concluded that capital regulations do not affect the risks of either Islamic or conventional banks.

Table 4: SUR Regression of Risk Equation of Conventional Banks

	LLPNIR		NPLGL	
	Coefficient	**SE**	**Coefficient**	**SE**
TCTR	-0.54855	0.7968	0.0538	0.0741
NIM	17.1968***	4.0160	-1.4745***	0.3796
NLTA	0.5449	0.6375	-0.2091***	0.0590
SIZE	-7.9810	5.8065	1.1458**	0.5618
ROAA	-24.0923***	3.3527	-2.0797	0.3205
No. of observations	258		249	
Parameter	5		5	
RMSE	90.877		8.3465	
R Square	0.1438		0.3281	
Chi Sq	60.66***		136.77***	

***, **, * Significant at the 1%, 5%, and 10% levels

This study concludes that capital regulations do not curb the risk of Islamic banks. Study results highlighted the inability of the capital regulations to reduce the risks in the Islamic banks of Pakistan. One possible explanation of this result may be those banks which keep capital ratios above the minimum capital requirements are not affected by such capital restrictions. These banks usually have their own capital and risk-taking points, an idea advocated by Maji and De (2015). As both Islamic and conventional banks in Pakistan usually maintain Total Capital to Total Risk Adjusted ratio well above the 8 per cent and 10.5 per cent required by Basel II and Basel III respectively, capital regulations do not affect the risk they take.

4.3. Impact of Capital Regulations on Bank Efficiency

Table 5 explains the impact of capital regulations on the NIM (a proxy of operational efficiency) for Islamic banks. Bank capital is shown to have a positive and significant effect on bank efficiency. Capital regulations have enhanced the operating efficiency of Islamic banks in this study, rejecting H2A. The findings of Pessarossi and Weill (2015) similarly report a positive effect on Chinese banks. The significant negative coefficient of bank risk shows that bank risk negatively affects bank efficiency. This means banks which take greater risk have less efficiency. As LLPNIR increases, efficiency decreased due to either poor monitoring of loans from bad management or unavoidable external events making it difficult to reduce these loans. These findings support H3A as argued by the bad luck hypothesis. These findings are consistent with those reported by Tan and Floros (2013).

Table 5: SUR Regression of Efficiency Equation with NIM as dependent variable

Variable	Coefficient	SE
TCTR	0.0943***	0.0301
LLPNIR	-0.0346***	0.0125
NLTA	-0.0088	0.0260
SIZE	0.4176	0.3134
ROAA	0.1720	0.1167
No. of observations	45	
Parameter	5	
RMSE	1.5421	
R Square	0.1619	
Chi Sq	27.11***	

***, **, * Significant at the 1%, 5%, and 10% levels

In this study CIR is used as a proxy of cost inefficiency whose high value is a signal of high inefficiency or low value of low efficiency. Table 6 shows that capital regulations do not affect the cost inefficiency of Islamic banks, thus we reject H_{2A}. We know the impact of risk on the inefficiency of Islamic banks is negative as the sign of the LLPNIR ratio is negative and reaches statistical significance. This shows that Islamic banks in our sample which possess high risks also have high efficiency. The impact of bank risk is positive on bank cost efficiency. Size negatively affects bank inefficiency. This result explains that the big banks are more efficient than the smaller ones. One reason can be size that allows big banks to be more diversified in loaning and deposit deployment. The findings of Vu and Nahm (2013) also report a positive relationship between size and efficiency. It is also evident in Table 6 that the effect of profitability on bank inefficiency is negative and highly significant. This means that banks with high profit are more efficient than their less profitable counterparts. Findings of Hassan (2006) also report a positive relationship between the profitability and efficiency.

Table 6: SUR Regression of Efficiency Equation with CIR as dependent variable

Variable	Coefficient	SE
TCTR	-0.1789	0.3049
LLPNIR	-1.1075***	0.1036
NLTA	-0.4064	0.2580
SIZE	-6.4071***	3.1343
ROAA	-29.2409***	1.1431
No. of observations	45	
Parameter	5	
RMSE	15.3913	
R Square	0.9485	
Chi Sq	993.79***	

***, **, * Significant at the 1%, 5%, and 10% levels

Table 7 reports the impact of capital regulations on the efficiency of conventional banks. They increase operational efficiency, as represented by NIM, and have no effect on the cost efficiency, as represented by CIR. Results show no difference in the effect of capital regulations on operational and cost efficiency in the case of Islamic and conventional banks. However, the impact of risk, liquidity and size is different in the case of conventional banks. From the results of Tables 6 and 7, it is clear there is little difference in the impact of capital regulations on the efficiency of conventional and Islamic banks. Capital regulations increase the pure operational efficiency of both Islamic and conventional banks, while it does not affect the cost efficiency in either type of bank. These results support the findings of Errico and Farahbaksh (1998), who also report the equivalent treatment of Islamic and conventional banks by the Basel accord.

Table 7: SUR Regression of Efficiency Equation of Conventional Banks

	CIR		NIM	
	Coefficient	**SE**	**Coefficient**	**SE**
TCTR	0.1063***	0.0097	-0.0909	0.2988
LLPNIR	0.0045***	0.0008	0.0799	0.0255
NLTA	0.0234***	0.0079	-0.1681	0.2346
SIZE	0.5982***	0.0620	-2.6646	1.8244
ROAA	0.4066	0.0451	-15.2169***	1.3224
No. of observations	258		258	
Parameter	5		5	
RMSE	45.01047		1.44397	
R Square	0.3846		0.3976	
Chi Sq	165.65***		343.87***	

***, **, * Significant at the 1%, 5%, and 10% levels

This study concludes that Basel capital regulations treat operating and cost efficiency differently. It has enhanced the operating efficiency but has no effect on the cost efficiency of Islamic banks in this sample.

4.4. The Capital Equation

The result for the impact of different variables on the Islamic bank regulatory capital ratio is reported in Table 8. Results of the study prove that bank risk does not affect the bank capital of the Islamic banks rejecting H1A. The relationship between bank efficiency and bank capital ratio is positive and highly significant. The results reject H2A. Here results are in line with the work of Ahmad, Ariff & Skully (2008). The findings of this study demonstrate that banks having low liquidity normally have high capital ratios. This phenomenon explains the fact that Islamic banks in the sample of this study are highly capitalized as almost all of Islamic banks have capital ratio above the recommended ratio, so in order to maintain their capital, they sacrifice their liquidity. The results of this study also indicate as bank size increases, bank capital decrease and vice versa. In other words, large banks have low capital ratios. One possible justification could be that size allows the banks easy access to capital market. This allows big banks to hold less capital ratio than their smaller counterparts. The same justification can be put forward for the negative impact of profitability on the bank capital.

Table 8: SUR Regression of Capital Equation with TCTR as dependent variable

Variable	Coefficient	SE
LLPNIR	-0.0568	0.0603
NIM	2.0299***	0.6487
NLTA	-0.3935***	0.1046
SIZE	-7.2051***	0.9789
ROAA	-1.8481***	0.4903
No. of observations	45	
Parameter	5	
RMSE	7.0421	
R Square	0.7259	
Chi Sq	135.16***	

***, **, * Significant at the 1%, 5%, and 10% levels

The results of this study suggest that risk taking does not affect the regulatory capital of Islamic banks, while efficiency has positive effect on the capital of Islamic banks in the sample. This indicates that efficient banks

are highly capitalized. This could be because high efficiency allows banks extra income to maintain high capital ratios to overcome the possibility of bankruptcy.

4.5. Impact of Capitals Regulations on Risk before and after Global Financial Crisis

This research also compares the impact of capital regulations on the risks of Islamic banks before and after the Global Financial Crisis in Table 9. Capital regulations positively impact bank risk before the crisis and this effect is no longer significant after the crisis. Although Pakistani banks were not affected by the Global Financial Crisis due to low share in international financial markets, Pakistani banks might have maintained their regulatory capital ratio far above the required ratio as a precautionary measure.

Table 9: SUR Regression of Risk before and after Global Financial Crisis

	Before Crisis		**After Crisis**	
	Coefficient	**SE**	**Coefficient**	**SE**
TCTR	0.5249**	0.2354	-0.7400	0.4688
NIM	-2.7660***	0.7112	-3.026363	2.9359
NLTA	0.1008	0.2173	-.4930837	0.3616
SIZE	12.8411***	3.5206	-9.782909	6.0795
ROAA	0.1758	0.5630	-8.309054***	4.6926
No. of observations	16		29	
Parameter	5		5	
RMSE	6.650437		16.49246	
R Square	0.4719		.3387	
Chi Sq	32.12***		22.73***	

According to the findings of this study there is a significant difference in the effect of capital regulations on bank risk before and after the financial crisis. Capital regulations have enhanced the bank risks before crisis while it has no effect on bank risk after the crisis. This insignificant effect of capital regulations after the crisis points towards the ineffectiveness of capital regulations in post crisis period.

4.6. Impact of Capital Regulation on Efficiency before and after Global Financial Crisis

Table 10 compares and reports on the impact of capital regulation on Islamic bank efficiency before and after the Global Financial Crisis. According to the results reported in Table 10 there is no difference in the

impact of capital regulations on bank efficiency before and after the crisis. The Basel Capital regulations have enhanced the operational efficiency in both time periods.

Table 10: SUR Regression of Efficiency before and after Global Financial Crisis

	Before Crisis		After Crisis	
	Coefficient	**SE**	**Coefficient**	**SE**
TCTR	0.1620**	0.0650	0.0722**	0.0281
LLPNIR	-0.2199***	0.0565	-0.0117	0.0113
NLTA	0.0291	0.0608	-0.0315	0.0215
SIZE	3.1367***	1.1372	-0.4597	0.3587
ROAA	0.1189	0.1582	0.8476***	0.2659
No. of observations	16		29	
Parameter	5		5	
RMSE	1.887688		1.040119	
R Square	0.2484		0.3882	
Chi Sq	23.18***		27.02***	

This study concludes that due to capital regulations, operational efficiency is improved both before and after the Global Financial Crisis time periods. Although the effects of the Global Financial Crisis were felt world-wide, and Pakistan is no exception to this, there was no visible effect of the crisis on the efficiency of Islamic banks in Pakistan. This may be due to the low share of Pakistani Islamic banks in international financial markets.

5. Policy Implications

The findings of this study will help the State Bank of Pakistan assess the effectiveness of the Basel capital regulations in terms of risk reduction and efficiency enhancement of the Islamic banks, particularly the overall banking sector generally. Ineffectiveness of the Basel capital regulations with respect to risk taking of Islamic banks demands for different capital requirements or tool for Islamic banks. The lack of consensus of the effect of capital regulations on Islamic bank's efficiency also supports the argument of separate capital regulations or mechanisms for Islamic banks.

The State Bank of Pakistan implemented the Basel Accords to align itself with the international community, however the ineffectiveness of the Basel capital regulations with respect to risk reduction of both Islamic and conventional banks points towards formulating regulations according to one's environment. Though it is a good idea to comply international regulations, nevertheless regulators should look at their country's specific

culture, demographics, circumstances and financial sector needs before implementing the regulations. Dissimilar effect of the Basel capital regulations with respect to risk and efficiency of both Islamic and conventional banks demands for treatment of risk and efficiency differently i.e. making different regulations to enhance efficiency and risk reduction.

6. Conclusion

This study investigates and compares the interrelationships between risk, efficiency and bank capital of commercial banks of Pakistan (Islamic and conventional) from 2003 to 2015. By employing Zellner's (1962) SUR approach, results indicate that capital regulations have no impact on Islamic banks risks. However, where the effect of capital regulations on bank efficiency is concerned, the study reports mixed findings. These capital regulations have increased the pure operational efficiency; however, the cost efficiency of Islamic banks neither increased nor decreased during different capital regulations regimes. This study finds no difference in the impact of regulatory capital requirements on risk and efficiency of Islamic and conventional banks. With regards to the effect of capital regulations on bank risk before and after the Global Financial Crisis, there is major difference in the effect of capital regulations on bank risk before and after the Global Financial Crisis, while the effect of capital regulations on bank efficiency remains same before and after the crisis.

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The Lahore Journal of Business
7 : 1 (Autumn 2018): pp. 137–157

Pay or not to Pay Dividends: Company Policy and Investor Expectations

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Abstract

This paper attempts to understand the linkage of dividend decisions and investors' perceptions within the context of the Pakistani corporate sector. It is intended to proffer new evidence for designing dividend policies that satisfies investors' perceptions. Data are collected from individual investors by using questionnaires to obtain opinions about essential factors, patterns, processes and preferences for cash dividends. Results indicate that stability in the rate of dividend, compatibility with the inflation rate and continuity of dividend payment are the top-ranking factors for investors. Stock dividends are preferred by Pakistani investors if their company is not paying cash dividends, and share buy-back decisions are taken negatively. The theoretical explanation for preferring dividends indicates that Pakistani investors support dividend signaling theory, agency cost, clientele effect, asymmetric information effect, tax effect and rational expectation models. That is why it exhibits a positive relation between dividends and investors' perception. The contributions and recommendations for further studies are also addressed.

Keywords: Dividend Policies, investors perception, dividend theories

JEL Classification: G11, G35, G41.

1. Introduction

Dividend policy remains a widely-investigated issue in the field of corporate finance due to its linkage with financing and investment decisions and its ultimate impact on organizational value. It can prove an unsolvable puzzle for corporate managers. Despite its importance, two

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contending opinions have emerged in the literature about dividend policy. One stream of researchers has viewed it as relevant for designing corporate financial strategies, whereas the other stream has proclaimed it as irrelevant. Ross, Westerfield, and Jaffe (2013) have identified it as a two-handed lawyer problem: from one aspect, financial economists regard it as pertinent, whereas from another point of view, financial economists consider it unrelated. Dividend policy has become an unresolved issue in the field of finance (Ehrhardt &Brigham, 2016).

Dividend policy is equally important for managers and investors. Investors consider it a consistent source of income and a signaling mechanism of performance. Management pays close attention in designing their dividend policies as it affects stock value as well as investment decisions (Yao, Baker, & Powell, 2012). Management success is also measured by its ability to maximize shareholder value (Naser, Nuseibeh, & Rashed, 2013), which can be achieved through the complete knowledge of the dividend policy mechanism.

Previous studies have been based either on the opinion of financial officers (Brav, Graham, Harvey, & Michaely, 2005), executives (Yao et al., 2012) or managers (Baker & Jabbouri, 2016; Butler, Grullon, & Weston, 2005; Naser et al., 2013) in formulating and designing their dividend policies. However, limited studies have been conducted to explore the perceptions of investors directly about dividend decisions (Dong, Robinson, & Veld, 2005; Lee, Rosenthal, Veld, & Veld- Merkoulova, 2015; Maditinos, Sevic, Theriou, & Tsinani, 2007).

The study is an attempt to determine the behavior of individual Pakistani investors in the event of a change in dividend policy, primarily when the dividend is paid and when it is not. This study applies dividend theories to enrich the literature in the field of finance and demonstrates that dividend policies, stock prices, and investor's perception are closely associated. Dividend theories are empirically tested, and its effect on individual investor's behavior is observed. This paper presents new insight into dividend policy by highlighting the investors' perspective within the context of the Pakistani corporate sector.

The current study has the following objectives:

- Identify and rank the essential factors that individual investors perceive as affecting their dividend policies.

- Express the opinions of investors about dividend processes and patterns, stock dividends, share repurchase and firm value.
- Provide theoretical and empirical support for individual investors regarding dividend preferences.

2. Literature Review

Previous studies provide evidence of a relationship between dividend policy and investor perception, and different theories and factors have been advanced in the literature to explain this relationship. Dong et al. (2005) have conducted a survey of individual investors, collecting their opinions about dividend policies. Results of their study have proclaimed that cash dividend is preferred over stock dividend, and, in case the company is incapable of cash payment, a stock dividend would be acceptable. Similarly, Maditinos et al. (2007) have investigated the dividend preferences of investors and have also confirmed similar cash dividend preference in Greek investors. Furthermore, the study found that wealthy investors preferred stock dividend over cash dividend in order to enhance their investment.

Korkeamaki, Liljeblom and Pasternack (2010) have stated that changes in dividend tax rate has a necessary implication in designing dividend policy. Companies adjust their dividend payout accordingly, consistent with shareholder clientele, adjusting to the new tax system. Brennan and Thakor (1990) have explained the importance of dividend policy for the shareholders, indicating that in the presence of taxes, the majority of shareholders prefer dividends for small distribution, capital gains for large distribution and share repurchases for the largest distributions. Mathur, Singh, Nejadmalayeri and Jiraporn (2013) have stated that bond investors take large dividend payments negatively.

Baker and Wurgler (2002) have surveyed dividend-paying firms to discover the opinions of practitioners regarding the relationship between dividend policy and firm value. Their study has found that managers prefer to carry on stable dividend policies which will ultimately impact stock prices in the market. Similarly, it is empirically evident that dividend policy and investors' perceptions are closely related to each other. Jong Ronald and Chris (2003) have examined the relationship between dividend policies and repurchase decisions in Canadian firms and have concluded that companies decide cash payment based on cash flow.

Another study observed the opinions of CFO and Treasurers of various firms regarding dividend policy and investor's behavior (Brav et al., 2005). The study concluded that financial executives confirmed the investors' high priority toward dividends (while ignoring tax disadvantage). Likewise, a study by Anand (2004) surveyed financial executives (CFO) from 500 Indian companies and found that dividend policy has importance for shareholders as well as financial experts and decision makers. This assertion is consistent with our view that dividend policies are preferred to be consistent to perform in accordance with shareholder expectations. Each of these empirical findings provide justification for the present study, which aims to express the opinion of individual investors about dividend decisions based on theories.

3. Theories for Dividend Policy

The major theories of dividend policy justifying cash dividend preferences are illustrated below:

3.1. Bird-in-Hand Theory

According to this theory, the dividend policy of a company has a strong effect on stock market prices. Shareholders of a company expect either dividends or capital gains as compensation for their investment. Risk-averse shareholders, however, tend to desire current and stable income (such as cash dividends) over uncertain income (such as capital gains) (Gordon, 1959; Khan, 2012; Lintner, 1956).

3.2. Signaling Theory

This theory postulates that dividends act as a signal to convey growth of the company in the eyes of shareholders. Company managers possess insights into information and therefore are expected to disseminate key information to investors or shareholders of the company. These signals can be positive (consistency or increase in dividend) or negative (lack of dividend or decrease in dividend) which would ultimately decrease or increase share price (Asquith & Mullins, 1986; Mathur et al., 2013; Travlos, Trigeorgis, & Vafeas, 2001).

3.3. Agency Cost Theory

The term agency can be understood as a relationship of shareholders and management, whereas agency cost is the difference

between the interest of shareholders and decision makers (management) (Jensen & Meckling, 1976). This study also advocates that within an organization, equity ownership of decision makers has a significant impact on the dividend policy of the company. Agency cost can be divided into two parts: monitoring (Easterbrook, 1984) and avoiding risks (Mathur et al., 2013).

3.4. Clientele Effect

This theory explains that investors keenly observe dividend policies of various firms and maintain their stock holdings concerning the information gained. Consequently, investors tend to maintain or increase the stock of companies that convey consistent dividend policy in accordance with their perception. In the case of a change in perception of dividend policy, the investor will promptly divest the company's stock and invest in any other company's shares. However, investor attitude is based on preference toward dividend gains, rather than capital gains, due to a lower level of risk associated with it. Thus, it can be concluded that reliable and constant dividend policy has a greater impact on investor behavior, rather than the policy itself (Anand, 2004; Korkeamaki et al., 2010).

3.5. Asymmetric Information

In a competitive market, there should be a similar level of information accessible to all stakeholders of the company (such as decision makers, shareholders and credit providers). However, in real-life situations, this becomes impossible, and one member of the group may have more in-depth information regarding investment opportunities in the future and upcoming projects. This situation creates information asymmetry in the market, and one group may dominate due to information accessibility over others (Miller & Rock, 1985). In general, this dominating group with in-depth information may include directors and managers of the company with key decision powers. The managers and directors having in-depth information will ultimately lead to a change in prices of the company's stock in the market (Khan et al., 2011).

3.6. Tax Preference Theory

This theory postulates that the imposition of tax on dividend income can impact the net return of investors and therefore they tend to focus less on dividend policy in comparison to capital gains (which bear less tax). It can be argued that investors prefer capital gains over dividend due to a

higher level of control on capital gains (Jong et al., 2003). Baker and Wurgler (2002) and Maditinos et al. (2007) have provided some support to the theory, whereas Brav et al. (2005) have found that CFO's of a company tend to de-prioritize the taxes in designing their dividend policy.

3.7. Residual Theory

This theory considers dividend as residual income and recommends managers pay dividends if the company lacks inside growth or investment opportunities. This theory prioritizes the internal investment needs of the company, followed by disbursement of the remaining amount as a dividend to shareholders. Therefore, the company should strongly emphasize internal investment rather than disbursement of dividends to shareholders (Baker, Powell, & Veit, 2002; Korkeamaki et al., 2010).

3.8. Rational Expectations Model

This theory considers dividend policy that does not disturb the stock market prices as extraneous. The anticipation of investors regarding dividend policy is the major factor that can influence stock market prices of the organization (Clark-Murphy & Soutar, 2004). Stockholders have certain beliefs about the dividend policy, and if the organization successfully meets their expectations, and declares dividends per their perception, then prices will go up or stay unaltered (Khan et al., 2011). Otherwise, the company will face price distress and its earnings will go down more than anticipated (Akbar & Baig, 2010).

4. Research Methodology

4.1. Research Design

Our study was cross-sectional, analytical and was completed with minimal interference from researchers in a non-contrived setting. Individual investors who own the stocks of listed companies are the unit of analysis. Purposive sampling technique was adopted for sample selection along with the following criteria: a) investors own the stocks of listed companies, b) investors must have sufficient knowledge of investment terminology and dividend theories, and c) investors must be aware of current stock market conditions, rules and regulations. Keeping in mind the research design, data were collected from finance students who are also the regular investors specially obtaining dividend-paying stocks. Previous studies have shown that students are the suitable sample for this

type of study due to their knowledge and experience in the relevant field (Beal & Delpachitra, 2003; Chen & Volpe, 1998). The selected students were also aware of stock market terminology and dividend theories. Data collection involved distribution of 200 questionnaires; a total of 149 were returned back to the researchers. However, the screening process found 131 completed usable questionnaires, with the remainder consisting of incomplete, flawed and non-useable questionnaires. Data collection process yielded an overall response rate of 66 per cent, which is considered good among researchers in social sciences (Babbie, 2015).

The questionnaire was developed after viewing the survey instruments of Baker and Jabbouri (2016) and Maditinos et al. (2007). The questionnaire consisted of three sections. Section 1 included six questions describing respondents' characteristics and industries of investment. Section 2 included 20 statements explaining the level of importance, from none (0) to high (3), for important factors affecting dividend policy decisions and dividend patterns. Finally, Section 3 included 38 statements measured on a 5-point Likert scale from strongly disagree (1) to strongly agree (5) to explain the investors' level of agreement regarding dividend issues and their preferences for cash dividends.

5. Results

5.1. Respondents Characteristics

Table 1 shows that 15 per cent of the investors who participated in this study are below 25 years of age, out of which 12.9 per cent are graduates, and 17 per cent have a master's degree. 49 per cent fall into category two for age (i.e. 26-30 years), out of which 48 per cent are graduates, and 49 per cent are master's degree holders. 36 percent are in the 3rd category for age (i.e. above 30 years), out of which 39 per cent have completed their graduation, and 33 per cent have finished their master's degree. The participation of male (76 per cent) investors was more than female (24 per cent) in this research. 73 per cent of the males are graduates, and 80 per cent are master's degree holders, while among females, this percentage is lower, i.e. 27 per cent for graduate and 20 per cent for master's degree.

Table 1: Respondents Characteristics

Variables	Category	Qualification				Total	
		Graduation		Masters or Equivalent			
		Freq.	%	Freq.	%	Freq.	%
Age	Below 25	8	12.9	12	17.4	20	15.3
	26 – 30	30	48.4	34	49.3	64	48.9
	Above 30	24	38.7	23	33.3	47	35.9
Gender	Male	45	72.6	55	79.7	100	76.3
	Female	17	27.4	14	20.3	31	23.7
Total		**62**	**100**	**69**	**100**	**131**	**100**

5.2. *Industries of Investment*

The questionnaire included a question which inquired about the industries of respective investment in the stock market and investors were able to specify an industry of their choice, whether it was mentioned as an option or not. The open choice for investors to mention their own investment industries yielded three more industries to be included in the analysis: information, communication, and transport industries. These three industries are grouped combinedly. Table 2 demonstrates that 50 per cent of the investors either belong to mineral, fuel, and energy or cement and other manufacturing companies and earn less than Rs. 35,000. 46 per cent of the investors earn an income of Rs. 35,000 or more and belong to either mineral, fuel and energy or chemicals, fertilizer, and pharmaceutical industries.

Table 2: Respondents Industries of Investment

Variables	Category	Monthly Income				Total	
		Less than Rs. 35,000		Rs. 35,000 or more			
		Freq.	%	Freq.	%	Freq.	%
Major Industry	Mineral, Fuel and Energy	11	25.0	23	26.4	34	26.0
	Chemicals, Fertilizer and Pharmaceutical	6	13.6	17	19.5	23	17.6
	Financial Institutions	10	22.7	16	18.4	26	19.8
	Cement and other manufacturing	11	25.0	16	18.4	27	20.6
	Food and Personal Use	3	6.8	7	8.0	10	7.6
	Information, Communication and Transport	3	6.8	8	9.2	11	8.4
Total		**44**	**100**	**87**	**100**	**131**	**100**

5.3. *Factors Influencing Dividend Policy*

The first objective of our study was to identify the relevant factors that Pakistani investors consider necessary for their companies' dividend policies, and then rank them according to their importance. Table 3 includes 14 potential factors extracted from H. K. Baker and Kapoor (2015) with the addition of some other possible determinants of dividend policy, per the expectation of Pakistani investors. Respondents were requested to reveal essential predictors that can influence their priority dividend choices. They have presented a list of 14 factors with a given option to enter any relevant predictor, but they included no further factor.

Table 3: Factors Influencing Dividend Policy

SR #	Factor	Level of Importance (%)				Mean	Std.	t-value
		None	Low	Mod	High			
		0	1	2	3			
F5	Stability in Rate of dividend	0.8	15.3	9.2	74.8	2.580	0.774	38.147**
F13	Compatible with Inflation Rate	0.0	1.5	28.2	70.2	2.687	0.497	61.825**
F1	Continuity of dividend Payment	7.6	14.5	22.1	55.7	2.260	0.973	26.568**
F2	Pattern of past dividends	0.0	18.3	26.7	55.0	2.366	0.777	34.874**
F10	Projections about future state of the economy	3.8	27.5	29.0	39.7	2.046	0.910	25.722**
F8	Stability of dividend Amount	1.5	13.7	46.6	38.2	2.214	0.734	34.525**
F9	Stability of earnings	0.0	32.1	32.8	35.1	2.031	0.822	28.267**
F7	Current degree of financial leverage	0.8	19.1	46.6	33.6	2.130	0.738	33.033**
F6	Expected rate of return on firm' s assets	10.7	16.0	43.5	29.8	1.924	0.942	23.385**
F11	Level of expected future earnings	6.1	29.0	37.4	27.5	1.863	0.892	23.889**
F12	Contractual constraints	4.6	19.1	51.9	24.4	1.962	0.788	28.480**
F4	Future investment projects	3.8	26.0	48.1	22.1	1.885	0.791	27.292**
F3	Level of current earnings	10.7	24.4	50.4	14.5	1.687	0.851	22.687**
F14	Desire for cash funds	2.3	14.5	73.3	9.9	1.908	0.574	38.023**

*p < 0.05, **p < 0.01

Table 3 also shows their level of importance with mean, standard deviation values and corresponding t-statistic, which contains the null hypothesis (H0), as the mean response equals to 0 (no importance). We were primarily concerned with the highest-ranking score factors for establishing investors' perception about dividend policy. The four top-ranking factors were stability in the rate of dividend (74.8 per cent),

compatible with inflation rate (70.2 per cent), continuity of dividend payment (55.7 per cent) and pattern of past dividends (55 per cent). All four of these factors exclusively represent investors' demand for dividends in real-income terms.

5.4. Dividend Policy Issues

Table 4 explains the investor's opinion related to different dividend policy issues, such as dividend patterns, process, stock dividends, share buy-back decisions, firm value and accounting manipulation. Panel A presents the importance of dividend patterns and then ranks them from the highest to the lowest values. Respondents were provided six dividend policy patterns and were asked to rank them according to the best description of their company's dividend policy. The responses indicated that 66 per cent of shareholders consider their company to follow fixed dividend (in percentage) of EPS policy, 55 per cent of stockholders believe that their companies adopt either regular dividend per share plus special dividend policy or dividend percentage of net income plus growth factor policy. However, 40 per cent of shareholders have the view that their companies do not have any pattern for dividend payments.

Table 4(a): Dividend Patterns

SR #	Factor	Level of Importance (%)				Mean	Std.	t-value
		None	Low	Mod	High			
		0	1	2	3			
Panel A. Dividend Patterns								
F16	Fixed dividend (in percentage) of EPS	0	15.3	18.3	66.4	2.511	0.748	38.430**
F18	Dividend %age of Net Income + growth factor	3.8	18.3	22.9	55.0	2.290	0.899	29.168**
F19	Constant dividend per share plus special dividend	3.1	21.4	20.6	55.0	2.275	0.903	28.819**
F15	Fixed dividend in Rupees	0	12.2	33.6	54.2	2.420	0.701	39.502**
F17	Minor changes in the dividend per share in terms of Rupees or percentage	0	9.9	38.2	51.9	2.420	0.667	41.498**
F20	No pattern of Payment for dividends	15.3	22.9	21.4	40.5	1.870	1.112	19.247

*p < 0.05, **p < 0.01

From Panel B to Panel F, 16 statements are included that explain investors' level of agreement about different dividend policy issues. Panel B contains five statements showing respondents opinion about dividend processes and settings of their companies. The responses of investors for all five statements (S1, S2, S3, S4, S5) significantly differ from 3 (no opinion)

at 1 per cent level of significance. Approximately 83 per cent of shareholders either strongly agree or agree that their companies should alter dividend policy based on continual transformation in future earnings (S5). Almost 81 per cent of the investors believe that their companies must maintain a target payout ratio that can constantly be adjusted according to the policy requirement (S3). 74 per cent of investors think that their companies should sustain an uninterrupted record of dividend payments (S1). Close to 72 per cent of the stockholder's regard changing regular dividends negatively (S2). Almost 65 per cent of investors give higher value to the stability of dividend amount on the ratio (S4). Overall, these results express a strong preference for investors for cash dividends.

Table 4(b): Dividend Policy Issues

S#	Statements	SD	D	No	A	SA	Mean	Std.	t-value
		1	2	3	4	5			
Panel B. Dividend Process									
S1	A firm should strive to maintain an uninterrupted record of dividend payments	6.87	14.5	4.6	57	16.8	3.626	0.132	36.652**
S4	The market places greater value on stable dividends than stable payout ratios	9.16	16.8	9.2	47	17.6	3.473	0.224	32.487**
S3	A firm should have a target dividend payout ratio and periodically adjust the payout toward the target	6.11	10.7	2.3	62	19.1	3.771	0.071	40.298**
S2	A firm should avoid changing its regular dividend if it had to reverse that change in a year or so because this may create an unfavorable impression among investors about the firm	6.87	14.5	6.9	53	18.3	3.618	0.147	36.118**
S5	Dividends changes generally follow a shift in long-term sustainable earnings	6.11	8.4	2.3	71	12.2	3.748	0.987	43.456**
Panel C. Stock Dividends									
S6	I prefer to receive stock dividends if company is not paying cash dividends	3.1	22.1	15.3	48.9	10.7	3.420	0.045	37.464**
S10	I prefer stock dividends due to transaction cost	8.4	15.3	11.5	46.6	18.3	3.511	0.199	33.534**
S7	Stock dividends are more like stock split	6.9	32.8	24.4	22.9	13.0	3.023	0.167	29.657**
Panel D. Share Buy-backs Decisions									
S8	I consider the act of company extremely positive if it stops paying dividends and instead uses the money to buy back its stocks on the market.	26.0	33.6	3.8	27.5	9.2	2.6031	1.3682	21.775

S#	Statements	SD	D	No	A	SA	Mean	Std.	t-value
		1	2	3	4	5			
S9	Stock repurchase is good because it is a signal that the stock is undervalued	13.7	26.0	23.7	22.9	13.7	2.9695	1.2645	26.877
Panel E. Firm Value									
S11	An optimal dividend policy strikes a balance between current dividends and future growth that maximizes firms' value	0	0	5.3	60.3	34.4	4.237	0.711	68.228**
S13	A firm' s dividend policy affects its cost of capital	5.3	14.5	6.1	51.9	22.1	3.710	0.127	37.693**
S14	A firm' s investment, financing, and dividend decisions are interrelated	2.3	6.1	0.8	76.3	14.5	3.947	0.778	58.082**
S12	Any change in dividend policy is likely to affect firm value	8.4	9.2	7.6	50.4	24.4	2.267	0.176	22.074**
Panel F. Accounting Manipulations Effect									
S15	Dividend-paying stocks offer more certainty about the companies' future earnings prospects	3.1	6.1	2.3	58.0	30.5	4.069	0.921	50.538**
S16	Dividend-paying companies generate real earnings and are less likely to "cook the books"	0	0	0	69.5	30.5	4.305	0.462	106.586**

*p < 0.05, **p < 0.01

Panel C shows the significant results for stock dividends. Approximately 60 per cent of shareholders expressed their priority for stock dividends, indicating they agree or strongly agree if their companies are unable to pay cash dividends (S6), whereas 65 per cent of stockholders prefer it due to transaction cost (S10). These results further illustrate that investors were still not aware of the differentiation of stock dividends and stock split because 60 per cent of investors believe either they do not know or consider stock dividends and stock splits to be similar (S7). These findings are consistent with the results of Maditinos et al. (2007). Panel D includes two statements about share buy-back decisions, which show insignificant results. Pakistani investors strongly discourage share buy-back decisions, and these results highlight their preferences for cash dividends.

Panel E includes four statements (S11, S13, S14, S12) stating investors' viewpoint about the relationship of dividend policy and firm value. Results have indicated that all the statements show respondents' agreement on this relationship. Almost 95 per cent of the stockholders agree that optimal dividend policy creates a harmony between current dividends and a future growth rate that, in turn, boosts the firms' value (S11). Close to 91 per cent of respondents have a strong opinion that firms' financing, investment, and dividend decisions are interlinked (S14). Almost 75 per cent of respondents believe that any change in dividend

policy is likely to affect the firm value (S12). Approximately 74 per cent of respondents think dividend policy is affected by the cost of capital (S13).

The significant results are shown in Panel F for the statements (S15, S16) that highlight essential reasons for investors expecting dividends. Investors demand dividends because they consider dividend-paying companies as honest and less subject to be involved in fraudulent activities (Dong et al., 2005). Dividend-paying stocks provide positive conviction and inevitability regarding the firms' future perspective (Khan et al., 2011). Therefore, companies pay dividends for image-building purposes and keep the stock prices stable.

5.5. Explanations for Paying Cash Dividends

The final research question explains the investor perception for a cash dividend. Table 5 illustrates the extent of support that respondents ascribe to seven possible justifications for preferring cash dividends. Panel A of Table 5 reports mixed support to the bird-in-hand theory. Five statements are included to comprehend the responses of investors and only two (S21, S12) of them show statistically supportive results, which indicate Pakistani investors prefer dividends because they consider dividend-paying companies to be less risky and also alleviates a vague or erratic increase in future stock price by the organizations.

Panel B represents the responses of investors in three statements for signaling theory. These significant findings specify that shareholders regard dividends as essential due to its positive signaling mechanism about the future earnings and growth perspective of the organization. These results are pertinent to the findings of H. K. Baker and Jabbouri (2016), Clark-Murphy and Soutar (2004) and Travlos et al. (2001). These scholars have also expressed their belief in the strong signaling role of dividend decisions to convey positive or negative signals about the progress of the organization to both current or prospective shareholders and investors. The increasing or consistent dividends communicate optimistic signals, whereas declining dividends publicize adverse vibes in the stock market.

Table 5: Investors' Perceptions of Cash dividends

S#	Statements	SD	D	No	A	SA	Mean	Std.	t-value
		1	2	3	4	5			
Panel A. Bird-in-the-Hand Theory									
S25	You generally prefer cash dividends today to uncertain future price appreciation.	2.3	3.1	4.6	52.7	37.4	4.198	0.845	56.863**
S31	Investment in high dividend paying companies is less risky	3.1	6.9	13.7	37.4	38.9	4.023	0.041	44.223**
S26	If your company is not paying dividends, then You will sell part of your stocks for consumption purpose	3.1	22.1	21.4	26.0	27.5	3.527	1.198	33.687
S17	In a down market, the dividend yield is a more substantial fraction of the total returns than in an upmarket. This reason for you to invest more in dividend-paying shares in a down market	5.3	19.8	9.9	38.2	26.7	3.611	1.225	33.730
S32	Growing companies paying less dividends and considered to be riskier for investment	10.7	11.5	8.4	46.6	22.9	3.595	1.257	32.726
Panel B. Signaling Theory									
S23	Dividend provides signaling mechanism of prospects of the firm	2.3	12.2	3.1	45.0	37.4	4.031	0.052	43.850**
S35	A dividend increase is an indication that the future performance of the company is improving	3.1	10.7	4.6	47.3	34.4	3.992	0.049	43.569**
S22	Dividend-paying stocks offer more certainty about the future earnings	3.8	10.7	2.3	51.9	31.3	3.962	0.055	42.964**
Panel C. Agency Theory									
S27	The payment of dividends serves as a bonding mechanism to encourage managers to act in the interest of outside shareholders	0	2.29	12.98	69.47	15.27	3.824	0.924	47.379**
S21	Dividends are less important as a corporate monitoring mechanism for investors when companies comply with corporate governance norms	0	5.34	19.85	62.6	12.21	3.565	0.103	36.987**
Panel D. Clientele Effects									
S37	Dividends are better than capital gains	1.53	9.92	0.763	62.6	25.19	4.000	0.894	51.186**
S34	Dividend income is less risky than capital gain	0.76	19.1	15.27	48.09	16.79	3.611	0.004	41.145**
S18	I buy the stocks of other companies if my company is not paying dividends	3.05	15.3	14.5	44.27	22.9	3.687	0.082	39.005**

S#	Statements	SD	D	No	A	SA	Mean	Std.	t-value
		1	2	3	4	5			
Panel E. Asymmetric Information									
S20	Managers and directors have greater access to the company' inside information that investors	0	3.82	11.45	61.07	23.66	3.893	0.017	43.807**
S38	Information asymmetry affect the dividend policy of my company	0	5.34	10.69	51.91	32.06	3.947	0.112	40.637**
Panel F. Tax Effects									
S 36	Dividends are taxed at higher rate than capital gain	3.82	26.7	3.817	45.04	20.61	3.519	0.198	33.610**
S19	You prefer to receive dividends despite tax disadvantage	3.82	19.8	2.29	51.91	22.14	3.687	0.137	37.103**
S28	you submit an income tax return to claim reimbursement of the dividend surtax	0	4.58	7.634	45.04	42.75	4.137	0.065	44.453**
Panel G. Residual Theory									
S 33	I invest in dividend paying stocks during the economic downturns when fewer good investment projects are available.	34.4	30.5	7.634	16.79	10.69	2.389	1.384	19.754
S24	I wish to receive dividends because I believe the company will otherwise invest the money unprofitably	9.16	19.1	6.107	48.85	16.79	3.450	0.235	31.965**
S29	I want to receive the dividends even if company has more profitable opportunities inside	15.3	44.3	12.21	17.56	10.69	2.641	1.241	24.364
Panel H. Rational Expectation									
S30	I like to hold the stocks of the company even if it does not announce its dividend policy per your expectation	0	4.58	21.37	50.38	23.66	3.672	0.187	35.432**

*p < 0.05, **p < 0.01

The significant responses of investors about agency theory presented in Panel C highlighted their recognition about the agency issues. Two statements (S27, S21) were included, and their results presented the severity of the problem. 84 per cent of investors believe dividend payments can remove agency conflicts between shareholders and managers as shareholders take it positively, while 75 per cent of the shareholders take dividend policy as less important as a corporate monitoring mechanism, especially when companies comply with corporate governance norms. Panel D provides the significant results for clientele effect. 88 per cent of stockholders have a strong preference for dividend income (S37), 65 per cent consider it more stable and secure (S34) than capital gains. 67 per cent of respondents stated that they would sell the stocks of their companies if

their companies stop paying dividends and would start purchasing dividend paying stocks (S18).

Results of Panel E support the existence of asymmetric information effect. We included two statements (S20, S38) which are statistically different from 3 (no opinion) at 1 per cent level. About 85 per cent of shareholders admitted that company management can conveniently utilize inside information regarding policy decisions (S20), and almost 84 per cent believe that this information asymmetry can influence their dividend policy decisions and stock market prices (S38). Studies conducted by Azofra, Castrillo and Maria (2003) and Dorn and Huberman (2010) also supports the results of the present study. Panel F provides consistent significant results for tax effect at 1 per cent level for all three statements (S19, S28, S36). These results are consistent with the studies conducted by Korkeamaki et al. (2010) and Brennan and Thakor (1990), who have explained the substantial role of corporate taxes in modifying the shareholders' preferences regarding dividend decisions.

Findings of Panel G for Table 5 show results that fail to reach significance for a residual theory for all three statements (S24, S29, S33). These findings have indicated that Pakistani shareholders consider it to be extremely important that dividends be paid consistently and regularly. They do not regard it as residual income. These results further highlight the importance of dividends from the investors' point of view. Panel H provides the significant support for the rational expectation theory. Respondents were asked to express their beliefs about their firms' dividend policy. 77 per cent of shareholder stated that they will sell the shares of their companies if management does not announce its dividend policy according to their expectation (S30).

Finally, results have shown that the signaling theory, asymmetric information effect, agency cost, clientele effect and tax effect and rational expectation model are favored while Pakistani investors do not support bird-in-the-hand and residual theory. Overall findings of the present study have explained that shareholders regard dividend policies as substantially important in designing their portfolios. Dividend payments act as a signaling mechanism and provide viable signals about the prosperity of the organization, which is why it significantly affects the investors' perception as well.

6. Discussion and Conclusion

This study was conducted to express the opinion of investors about dividend policy issues, patterns, and important factors affecting dividend decisions. It also provided the theoretical explanation for dividend preferences within the context of Pakistani corporate sector. For this purpose, primary research was conducted using the questionnaire technique from investors to specify the effect of corporate dividend policy on investors' perception and belief. The present study has five main findings: first, results show that stability in the rate of dividend, compatibility with the inflation rate, continuity of dividend payment and prior patterns of the dividend are the top-ranking factors for investors that affect their expectations regarding dividend policy.

Second, investors described the dividend policy of their companies as the fixed dividend (in percentage) of EPS policy, constant dividend per share plus special dividend policy or dividend percentage of net income plus growth factor policy in the best possible ways.

Third, with regard to dividend process and settings, investors mainly believed their companies must change dividend policies based on a sustainable shift in future earnings. Investors also demanded target payout ratios and that the company should be consistently adjusting its current payout ratio towards the target ratio. Investors also required maintaining an uninterrupted record of dividend payment. Overall, investors agreed on keeping regular and stable payout ratios.

Fourth, investors preferred stock dividends if their companies do not pay cash dividends, but they discouraged share buy-back decisions. They believed dividend decisions have a strong influence on firm value. Lastly, the theoretical explanation for preferring cash dividend indicates that dividend signaling theory, asymmetric information effect, agency cost, clientele effect and rational expectation model are favored by Pakistani stockholders and show a positive relationship between dividend policy and investors' perception. Pakistani investors do not support bird-in-the-hand and residual theory.

6.1. Limitations and Future Recommendations

This study faces certain limitations that are necessary to be addressed by future researchers. First, the sample size of the study is limited, and focused on listed companies only; future researchers should

consider larger sample sizes to provide more comprehensive views about dividend decisions. Future researchers should perhaps use cluster sampling technique and include investors from all the sectors of the economy. Secondly, the current study is based on a close-ended survey instrument that does not provide freedom to the respondents to express their opinion. Future researchers should include open-ended questions as well, so that investors can express their views more deliberately. Thirdly, this study ignores the effect of the amount of investment. Investors perception based on investment may be diversified. Investors may perceive dividend policy differently from their investment point of view. So, future researchers may also value the amount of investment as well. Finally, a comparative study of managers, executives, and shareholders of similar companies is needed in the future to know their differences of opinion and priorities about dividend decisions.

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